University of California
Santa Barbara

I:
At Any Point:
an analysis and reflection

II:
Portfolio of Compositions

A dissertation submitted in partial satisfaction of the
requirements for the degree

Doctor of Philosophy
in
Music

by

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June 2016

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I dedicate this dissertation to my wonderful girlfriend Stephanie who gives me strength and love every day; and my parents, sister and brother in-law who have been nothing but supportive for my entire life. I love you all.

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ABSTRACT

I:
At Any Point
An Analysis and Reflection

II:
Portfolio of Compositions

By
Anthony Paul Garcia

I:

The first portion of this document is an in-depth analysis and full score of my work, *At Any Point,* for viola solo, chamber ensemble, live electronics, and video, premiered on March 5th, 2016 at the Museum of Art, Design, and Architecture at the University of California, Santa Barbara. This work was composed for this dissertation with the goal of exploring the possibilities of audience interaction and video manipulation in a concert work. *At Any Point* is inspired by the concept of physical time and uses words by astrophysicist Neil deGrasse Tyson as a jumping-off point. The treatment and visualization of time in the work is a main focus in this document in addition to the technical design, musical form, and compositional process.

II:

A PORTFOLIO OF COMPOSITIONS INCLUDING:

if it stops for chamber ensemble and fixed media

Smack the Wrist Good for guitar duo and spoken word

Slow Burn for clarinet and live electronics

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an analysis and reflection

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AT ANY POINT
an analysis and reflection

I. INTRODUCTION

> "We are not prisoners of our three dimensional space. I can walk left and right. I can jump up and down. I can walk forwards and backwards. And, I can repeat that. I can access all points of my three dimensional space, yet, I am a prisoner of the present. Forever transitioning from the past into the future. I have no access to the past. I have no access to the future. And so, if you go to a higher dimension it's not unrealistic to think that you step out of the time dimension and now you look at time as though we look at space… You can ask, 'When was I born?' 'Well, you're always born.' 'When did I go to college?' 'You're always going to college.' 'When did I die?' 'You're always dying.'… if your whole timeline is laid out in front of you, then you have access to it and you can jump in at any point." - astrophysicist Neil deGrasse Tyson

This statement by Neil deGrasse Tyson is the basis of my most recent work, *At Any Point*. The work explores the concept of time as a physical dimension, or, the idea that we may be able to traverse time as if it were a place, moving freely within its boundaries. If, in fact, one could access time as we do space, one could potentially jump to any point from any point, moving in any direction and at any speed. It is not much of a stretch to extend this idea of pliable and infinitely accessible time to music. Composers toy with this concept often when we reference thematic material, put a tone row in retrograde, or revisit motifs at half-tempo. We constantly refer back to or point toward something that has been or will be. It is in the nature of form and motivic development to return over and over again to an idea and then explore it from every angle. It grounds us and gives us direction and context. In this way, *At Any Point* is no different from many pieces of music. In it, I establish themes and context and I refer to them multiple times and in various ways. What the piece does differently is indicate how and when we are moving through time by using visual cues. The work aims to explore, parse, layer, loop, accelerate and reverse single moments in time not only through precomposed music but also multimedia such as video, audio samples, and images. The audience contributes to the visuals and sampled audio using a smartphone app created for the piece and they are encouraged to record events from other pieces that are programmed alongside *At Any Point*. The recorded media is then intertwined with the work making each showing a unique documentation of

the time and place of performance. By referencing the recent past, I hoped to evoke a kind of time travel akin to memory. The audience sees images and videos of events they've just experienced, but sometimes slowed down or reversed, sometimes filtered and unclear, sometimes as vivid as the first time they were experienced.

This document provides an analysis and reflection on the premiere of the work written for solo viola, amplified chamber ensemble, live electronics, and video. I will begin with a broad overview of the work after which there will be a brief section dedicated to the technology used to achieve both visual and audio effects followed by a section deconstructing and analyzing harmonic content and form. I will then give a more thorough look at the architecture of the final section which involves a direct visualization of the compositional design via video clips. Finally, there will be a reflection on the premiere, presented on March 5th, 2016 at the University of California Santa Barbara Museum of Art, Design & Architecture and revisions inspired by this performance featuring violist Dr. Jonathan Morgan and conductor Federico Llach conducting the Now Hear Ensemble.

II. Overview

The piece was constructed in multiple stages, many of which were pre-compositional. In this section I will briefly outline each of those stages and then they will be explored in greater detail later in this document.

Inspired by the quote from Tyson, the visual components were conceived before the compositional process began. I began by listing some possible operations one can do to video that had sonic and compositional analogs. These consisted of: normal playback, reversal, inversion, segmentation, repetition, layering, and speed variance. Further, there were certain operations that could be applied to video and audio that have a perceptual link without necessarily having a direct technical link. These include: glitches or static represented as white noise and granulation, filtering of audible frequency bands and color frequency bands, and light trails or blurring represented through reverb and delay. It was also important that the content of the videos directly referenced events

experienced by the audience during the concert, further alluding to the larger concept of time alteration. This could be emphasized by using videos actually taken by audience members throughout the concert, inspiring the idea for a dedicated smartphone application for audience members to record videos from their vantage point and submit them to me for use within the work. This idea would later be expanded by adding the capability to take pictures and record audio.

With the visual objectives laid out, I began to design the form of the work. This process revolved mainly around how and when to use the videos and the manner in which they would be manipulated. I wanted to separately feature the audience videos as well as videos that appeared to be occurring live, but were actually pre-recorded. These two distinct treatments of video evolved over time and became the basis of the slow and fast sections respectively.

Originally, I planned for three separate movements entitled *You're Always Being Born*, *You're Always Attending This Concert*, and *You're Always Dying*. As will be presented later, the piece became a through-composed work with no separation between movements through the compositional process. Although through-composed, the piece retains the movement titles in the score to separate sections but with a fourth section added, titled the same as the second section, *You're Always Attending This Concert.* The two middle movements are fused in tempo retaining the larger form and feel of a three movement work (see Table 1 for visual representation of the section arrangement).

In the next preparation to the writing process, I began to compose a main theme, henceforth referred to as Theme A. As I had developed the piece around the visual aspects, the A theme needed to serve as a vehicle for the planned video manipulations. It had to be useful in its prime, inverted, retrograde, and inverted retrograde forms as well as lend itself to being sped up or slowed down, reassembled, and used in a canon.

The final pre-compositional decision concerned the implementation of the video and other media, like fixed audio or live processing. I decided on two main pieces of software, one dedicated to digital and sampled audio, the other dedicated to video effects and triggering. I chose the digital audio

workstation (DAW) Ableton Live for audio processing and Resolume Avenue 4 for video processing. I had two additional pieces of software written for me that played integral roles: a smartphone application, written by Dr. Dhilung Kirat, and image processing software written by David Gordon.

With the foundation of the work in place, I began composing music for the instrumentalists, creating any needed fixed media, and experimenting with videos. I will delve into these processes in the following sections.

III. TECHNOLOGY

There were four main software applications that worked together to create the electronic effects in the work. Avenue 4 displayed, manipulated, and triggered visuals throughout the piece. Ableton Live handled the sample triggering, live audio processing, and routed MIDI messages to Avenue 4 for additional video clip triggering. A smartphone application, created for me by Dr. Dhilung Kirat, deposited audience videos, images, and sounds into a cloud-based folder. Image processing software, written by David Gordon, accessed, composited, and animated the audience-submitted photos throughout the concert.

Each of these components were brought together and managed by a performer who controlled them with various MIDI controllers in real time. The decision to have the electronics performed live, instead of having an entirely fixed media piece with the performers playing to click tracks, was made to enable the free interpretation of the viola soloist. It was very important for both me and Jonathan, the viola soloist, that he be able to play with freedom and expression; we both felt that a click track would be too rigid to achieve this. There were both weaknesses and strengths in this approach that will be addressed in the final section of this document. The following sections specifically detail the implementation of each of the digital components in the work.

A. Smartphone Application

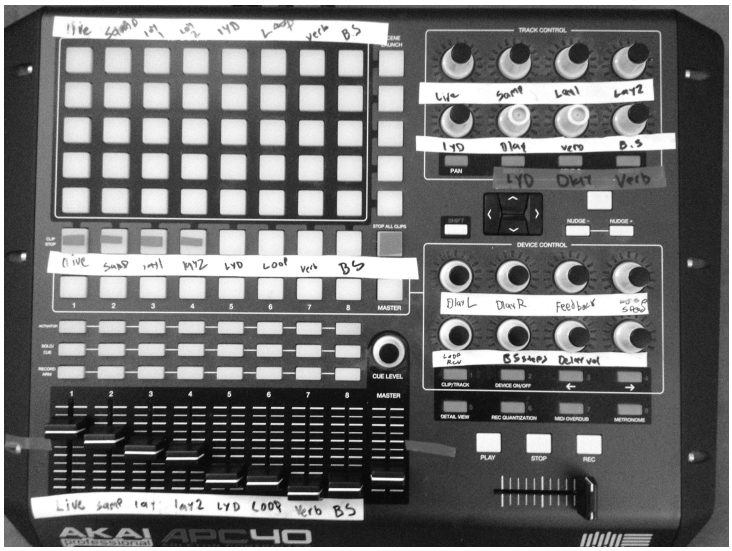
A smartphone application enabled audience members to record different kinds of media - photos, videos, and audio - and submit them to a cloud-based folder where they could be accessed by the electronics performer for video and audio processing and by the image processing software for compositing and animation. The application enforces some parameters on the media that is recorded. For uniformity's sake, we forced all videos to be shot in landscape mode and set a time limit of five seconds for video and audio recordings. This allowed for shorter upload times and saved space in both the cloud folder and the video launching application.

B. Audio

As with many electroacoustic works, *At Any Point* utilized elements of both fixed media and live processing. Ableton Live acted as the final stop in the signal flow of all audio, even audio extracted from video, before it was output to the loudspeakers. The live processing was done using built-in effects within Ableton. In this performance, all effects, effect chaining, and parameters were mapped to an Akai APC40 MIDI controller (see Figure 1). Four streams of audio were handled by Ableton: the live audio from the ensemble's microphones, the sampled and fixed media, audio from layer one of the video processing software, and audio from layer two of the video software (see the following section for an explanation of video layers). Any of these streams could be routed to any effect using a mapped "send" knob which determines the input level of that signal to an effect. Further, the effects themselves could be chained to each other in various configurations using similar knobs. Only five

effects, or sends, were used: send A was Ableton's Resonator unit (a series of delay lines that are fed back into themselves to create tuned resonance), send B was a delay unit with two independent time-variable delay lines for the right and left channels, send C was a reverberation unit, send D was a "buffer shuffler" device. This device maintains an audio buffer of a user-specified length and rearranges, reverses, mutes, and re-pitches sections of that buffer. Finally, send E was a looping device controlled by two foot switches used for recording and clearing a looped buffer. It is important to note that the live audio from the ensemble, as it was received in Ableton, was routed as "sends only." Ableton was not used as a method for amplification (which was handled by an engineer at the mixing board), but treated as a parallel effects unit.

fig 1. Akai APC40 MIDI controller



The role of the electronic audio in this work is one of enhancement. The effects are meant to augment the sound world of the acoustic instruments. For example, in the gaps throughout the section at measure 65, I triggered delay and reverb effects to carry the ensemble's sound through the silences. When that section repeated, I used the looping device to record a short section of the group and play it back during silences while adjusting the playback speed. In the case of the videos, effects chains played an important role in blending the sound of the videos with the ensemble. When the videos were triggered in the first *You're Always Dying* section (see Table 1), the audio from the videos is heard almost completely dry, without effects. Effects were slowly added throughout the section and finally the dry audio along with other effects were sent through the resonator unit which is tuned to compliment the harmonic material of the climax at measure 176.

In the performance, I triggered all prefigured media in addition to controlling live audio processing. Most samples and fixed media were generated by heavily processing audio of Neil deGrasse Tyson speaking. These samples are mostly unrecognizable as voices, except for instances when I allowed an audible word or vocal sound to surface among the processed sounds.

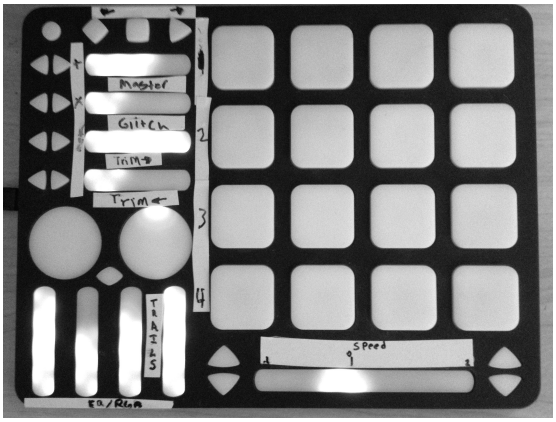
C. Video and Image Processing

All video was processed, launched, and output to a projector using Resolume Avenue 4. This application allows multiple videos to be layered on top of one another using various blending techniques. In each layer, the user may load video clips into slots that can be launched by selecting a slot with a mouse or MIDI controller. Only one clip per layer can be played at once, but clips from differing layers can play simultaneously. Additionally, each video clip's "triggerstyle" can be set independently. "Triggerstyle" refers to the playback response of a video clip when launched. Avenue 4 allows two kinds of triggerstyles: a clip set to "normal" will play when clicked or it receives a MIDI note-on message, and it will stop when it is either un-clicked or receives a note-off message. A clip set to 'piano' will play continuously through the video contained in the clip slot once a click or note-on is received, ignoring a note-off or un-click. Both of these triggerstyles were utilized in *At Any Point*: normal mode was used with the audience-submitted videos throughout the slow sections, while piano mode was used to trigger the pre-recorded video segments in the final fast section.

I devised three techniques for launching video clips during the piece. The first method uses a MIDI controller with a grid of trigger pads that can be customized to send any MIDI message. I mapped the pads of a Quneo controller (see Figure 2) to manually launch clips. Rotary knobs and sliders controlled visual effects and parameters such as speed, direction, and RGB equalization. Alternately, I could trigger a preprogrammed MIDI sequence from Ableton and route those messages to Avenue 4. This enabled me to loop sequences of videos hands-free or trigger a sequence of videos much more quickly than I could manually with the MIDI controller, sometimes achieving a burst of

rapid video grains. For the final section, I mapped silent pre-recorded clips to a MIDI keyboard controller (see Section V for full description).

fig. 2 Quneo programmable MIDI controller



Unlike videos, the submitted photos were first processed in standalone software, rendered as video frames, then routed to a clip slot in Avenue 4. The image processing software, written by David Gordon, is an application that intermittently checks the folder of audience-sourced images and composites them on top of each other as they arrive in the folder throughout the concert, creating a collage. I asked that the photos be slightly animated in a way that allowed individual images to briefly and clearly surface and then fade back into the blurry collage. There are two modes of animation: in the first, the images move slowly and remain centralized, and in the second the animation speeds up and the pictures are no longer bound to the center of the screen. These two modes are employed in different parts of the concert. The slow mode occurs during the works programmed alongside *At Any Point* and the fast mode is used in the introduction and recapitulation.

IV. Analysis

An extensive period of planning and preparation of materials was needed before I could begin scoring the work or constructing an Ableton session. The following sections document the results of that planning by detailing the building blocks of the music: form, thematic development, harmonic language, and rhythmic treatment.

A. Form

The form of *At Any Point* is a multi-layered expression and musical adaptation of the words from Neil deGrasse Tyson, "'When was I born?' 'Well, you're always born.' 'When did I go to college?'

‘You’re always going to college.’ ‘When did I die?’ ‘You’re always dying.’” This quote acts as the lynchpin for the material and concept of this work. Here, I will refer to two different forms of the work: the Work Form (see Table 1) which addresses the composed musical materials of the work, and the Concert Form (see Table 2), which takes into account other pieces programmed alongside *At Any Point.* I adapted the quote to serve the Work Form of the piece as follows:

- *You’re Always Being Born* gives birth to themes and tonal language to be revisited throughout the piece. It clearly presents the A theme with a boisterous tutti section after the introduction. The B theme is presented in measure 93 by the woodwinds followed by a whole tone cadenza from the viola. This section orients the audience to the sound world of the piece.
- *You’re Always Attending This Concert* (part I) revisits the themes and introduces videos and images of the works programmed before *At Any Point* submitted by the audience.
- *You’re Always Dying* explores the deterioration of those images and themes through video effects and the dispersion of the melody from the second section.
- *You’re Always Attending This Concert* (part II) chops, loops, disassembles, reverses, accelerates, and reorders Theme A in various ways, visualized by pre-recorded video.

In addition to the four major sections, the opening 46 measures are an autonomous introduction which zoom in and obsess on the first pitch and initial rhythm of Theme A. It is here that the viola introduces the audience to the important pitch cell derived from the A theme, discussed later in this document. The end of the work is an exact recapitulation of this introduction with an alternate ending that can be considered a coda. Bookending the work in this manner seemed an appropriate reference to the fluidity and circularity of time, couching the form nicely within the concept of the work.

Table 1 - At Any Point Work Form

Large form	Fast		Slow		Fast	
Section	Intro.	You're Always Being Born	You're Always Attending This Concert	You're Always Dying	You're Always Attending This Concert	Recap + coda
Video events	animated photo collage	none	• structured video improvisation of audience-sourced material • video glitch effects and light trails		pre-recorded videos	animated photo collage
Audio events	sampled, processed voices	effects and looping	• subtle delays and reverb of live sound • processed audio from videos with reverb, delays, buffer shuffler, and resonator • fixed media		brief instances of fixed media	sampled, processed voices

Although split into four sections conceptually and thematically, the piece, on the whole, feels like a traditional fast-slow-fast arrangement of movements, without breaks. *You're Always Attending This Concert (part I)* and *You're Always Dying* are somewhat fused due to their slow speed and foggy harmonic language. This is an artifact of the original planning of the work in which the three movements were to be separate and distinct in this way.

The design of the piece requires that it be the final work on a concert so that material from the works prior can be reused and appropriated within it. This is done by utilizing the audience's videos, pictures, and audio submitted throughout the concert. It is also requested that the quote from Neil deGrasse Tyson be played before the first piece on the concert and is the last thing heard on the concert, the goal being to enclose the production within one unifying concept. The piece also instructs the electronics performer to insert samples or sounds that may be in the preceding pieces into the final coda section. Zooming out further, one can look at this work as a concert-length piece within which other pieces are programmed (see Table 2).

Table 2 - At Any Point Concert Form

Musical events:		Other works programmed alongside	At Any Point	
Media events:	Tyson quote heard	Audience records video, audio, and takes photos, photo collage is constructed and displayed	Audience media utilized, fixed video and audio utilized	Tyson quote heard again

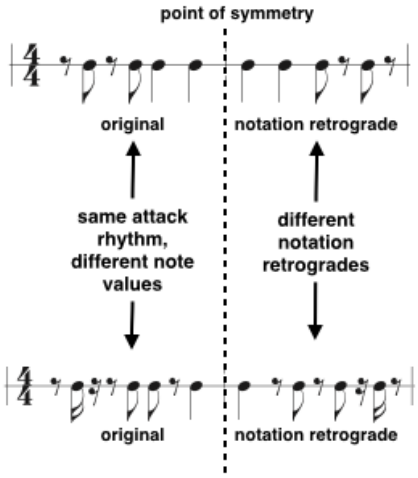
B. Thematic Development and Harmonic Language

There are three major themes in the work. In addition to Theme A, Theme B is constructed as a lyrical counterpoint to Theme A. Theme C is introduced in the initial *You're Always Attending This Concert* section, to be revisited only in small fragments after its introduction. The A theme underwent nearly 15 revisions in the initial stages of writing, as it was crafted to serve as a vehicle for the planned video manipulations. It is designed to be memorable and accessible to a wide variety of audience members allowing them to easily track the melody as it is being manipulated. This theme serves as a frame of reference, aural foundation, and indicator of time so that the listener can understand where they are as the melody is fragmented, dissected, or rearranged. This is all the more important in creating an association between visual and sonic material.

The A theme is paired with its visual analog (pre-recorded videos of performers playing that theme, see section V) in the final section. As the recorded video is altered, so is the theme. When the image is inverted, the theme is performed in inversion; when the video is being segmented and reordered, the theme undergoes the exact same treatment. All of these kinds of video manipulations are easily applied to notated music except when the video is reversed.

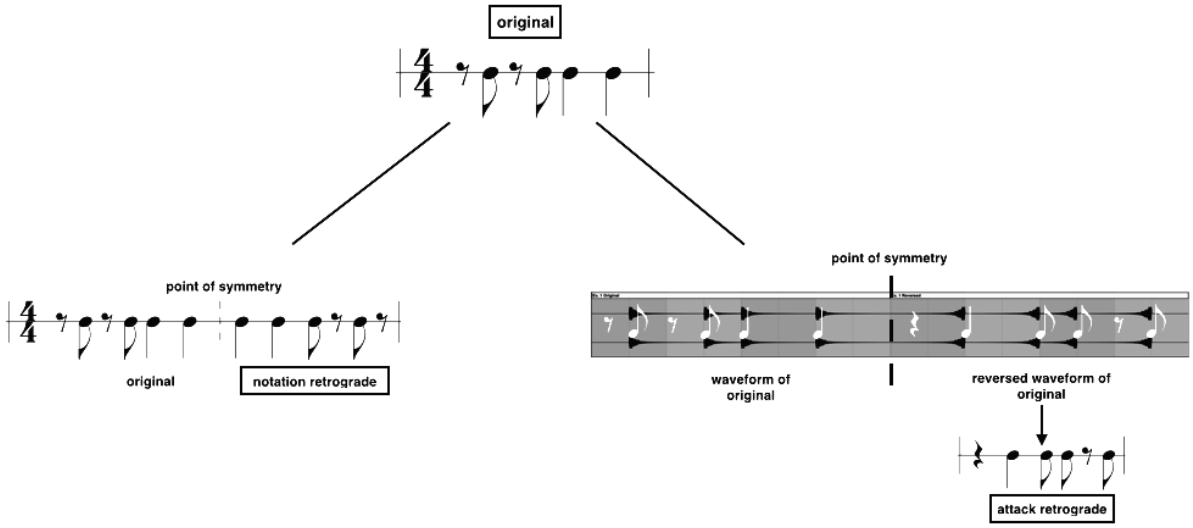
We associate the reversal of musical phrases with the common retrograde technique of Schoenberg and the Second Viennese School. On the pitch level, this works perfectly with a reversed video so the retrograde form of Theme A is an almost exact pitch retrograde, as will be shown. In the rhythmic sense, there needs to be extra care taken to ensure that the music aligns with the reversed video. Often (as in the music of Olivier Messiaen), a rhythmic retrograde is conceived of by writing or reading a notated rhythm in reverse. But, for my purposes, this kind of "notation retrograde" could not synchronize with a reversed video of the theme because it does not take into account the amount of sustain or silence after the attacks - it only mirrors the original notation. Depending on the durations the composer choses, the retrograde notation can vary widely for the same attack rhythm (see Figure 3).

fig 3. different notation retrogrades



In other words, this technique does not serve as an accurate representation of the sound as it is *heard* when reversed. The actual audible retrograded rhythm is a reversal of the attack rhythm, offset by the duration of the sustain of the final attack, not just a mirror of the written rhythm. When we reverse the waveform of a rhythm in a digital audio workstation we can visualize this concept. The reversed sound does not produce the notated retrograde. Using the same attack rhythm from the previous example, observe the difference between the outcomes of the two different retrograde techniques in Figure 4:

fig. 4 notation retrograde vs. attack retrograde



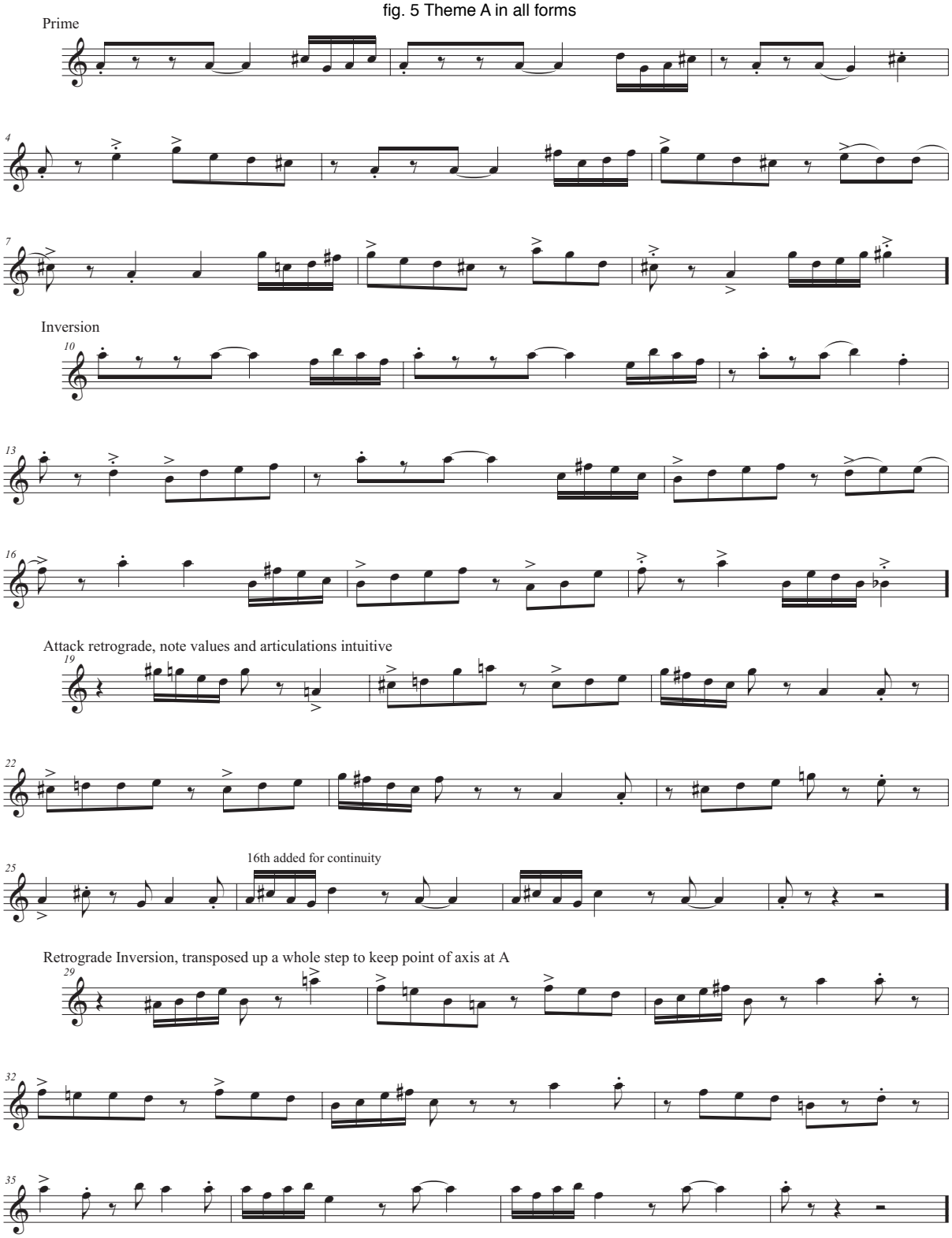
Of course, the sustains, decays, releases, and other physical properties of sound are reversed as well when reversing audio. For my purpose of showing the silent reversed video while performers play the retrograded theme, I needed only to consider the attack retrograde and was free to intuit the durations in the retrograde once the onsets were ascertained.

The process of composing the attack retrograde was as follows: determine the smallest duration in the passage (in this case, sixteenth notes), rewrite the original passage indicating only the attacks and replacing any sustain beyond the duration of a sixteenth note with rests. Then, simply rewrite the onset rhythm backwards verbatim from the original, making sure to account for the sustain of the final attack (this meant shifting the entire retrograde one 16th note forward). The result of this process is an interesting displacement of the rhythmic and harmonic emphasis. For example, the important pitch A which often lands on strong beats in the theme's original form, lands mostly on weak beats in the attack retrograde.

In its original form, Theme A, seen beginning in measure one in Figure 5, is in the A mixolydian mode with the only exceptions being the C naturals in bars five and seven and the final G sharp. The series of pitches C sharp, G, A, C sharp (labeled "motif 1" in Figure 6), their relative intervals, and contour play an integral part in the development of later sections of the piece. Even within the A theme, various varieties of this motif occur (see bracketed pitches in Figure 6). The importance and frequency of this series of intervals is easily observed throughout the piece. Notably, the patterns played by the xylophone and viola in the sequence at measures 356 to 363, the viola harmonics beginning at measure 248, the accelerating phrase beginning at measure 245, and the progression of viola lines beginning at measure 82.

The piece also heavily relies on the augmented fourth, or tritone, for harmonic progression, vertical harmony, and bitonal separation. Examples of this can be seen at the introduction of the B theme when the woodwinds begin on D sharp in measure 93 in direct opposition the pedal on A, and large modal shifts throughout the section from measures 299-380.

fig. 5 Theme A in all forms



The general harmonic progression of the work is slow. Momentum is achieved by sudden shifts in character, tempo, and modality - a characteristic of much of my work. In general, the piece moves among conventional modes such as mixolydian, lydian flat seven, whole tone, and octatonic. Sometimes these are layered on top of one another creating a distinct bitonality. Bass lines also play a large role in moving the piece forward harmonically. This is exemplified in the introduction, in which much of the ensemble are reiterating the pitch A for long periods of time over a moving synthesizer bass line. A similar technique is used in the climax of the first *You're Always Attending This Concert* section in measure 176.

V. You're Always Attending This Concert (part II) - A Detailed Look

In the final section of the work, beginning at measure 299, the A theme, its accompanying bass line (introduced during the canon in measure 318), and sometimes the B theme, are dissected and altered. At the same time, the accompanying visual material, comprised of pre-recorded video, is arranged in exactly the same way. If, for example, the theme is in retrograde, the video of that theme is played in reverse; if the theme is inverted, the image is seen inverted so that motion previously seen going up a keyboard or fingerboard is now seen going the opposite direction. The row labeled "operations" in Table 3 refers to operations performed on both the video clips and composed music in this section:

Table 3 - Theme A manipulations, video and music, final section

Measure:	299	309	323 beat 4	333	337	343	336 beat 2	363	366	370
Operation:	statement of Theme A	canon	retrograde	1st half inversion	2nd half retrograde inversion	speed varying	stretch motif 1	segments G, O, P merged, played forward, then in retrograde	segments G, O, P merged, played forward, then in retrograde	segment reordering
Instrument(s):	tutti	pno/ xylo	xylo	guit	guit	flute	vla, xylo, clar, pno, vc	vla	piano	clar

A significant challenge was encountered here; because all events were triggered live, there was no way to ensure that the ensemble tempo would match that of video. If the ensemble was even 5 BPM away from tempo, even if the video was triggered at the correct time, the synchronization did not work. We discovered that my initial written tempo (quarter note = 155) was too fast to be reliable in particularly virtuosic passages. I lowered the tempo to something more achievable (quarter note = 144) with the option of going faster if possible.

Once the most practical speed was determined and thoroughly rehearsed, the videos for this section could be recorded using a metronome to ensure consistency. To aid in the illusion that the videos in this section were taken during the actual performance, the ensemble was required to have at least one rehearsal in the venue where the concert was to be played, wearing performance attire, where the pre-recoded material could be shot. The videos were taken at half-tempo and the performers were instructed to play as physically as possible, exaggerating the movements associated with playing the passage. When edited, the videos were doubled in speed to regain the correct tempo. This technique gave the videos a surreal and highly physical articulation of the melody. Recording at half-tempo also ensured accuracy of the performers and left them time and space to show the rhythms and articulations with their movements.

There were four videos taken with this technique, each at a different angle. As expressed in Table 4, I recorded a wide shot of the entire ensemble and tight shots of the hands of the pianist, percussionist, and violist. All videos were of a performance of Theme A. Each video was panned left to right during the course of recording the passage in order to indicate to audience members what direction the segments were playing or at what point we were tapping into a given clip. The audience members taking video during the initial part of the concert were also instructed to pan in this way.

Video triggering was achieved with a small MIDI keyboard controller with each clip mapped to one pitch. In Table 4, the key mapping is indicated by the pitch name and octave number in bold. After determining the content of each triggered segment along with its assigned key, I composed a part

with traditional notation to indicate when each clip was triggered, the part can be seen in the score at measure 299.

In preparation for creating the musical and visual content for this section, the A theme and the corresponding videos were split into 18 segments, each measure divided evenly into half notes labeled alphabetically, A to R, in Figure 6:

fig. 6 A theme segmentation

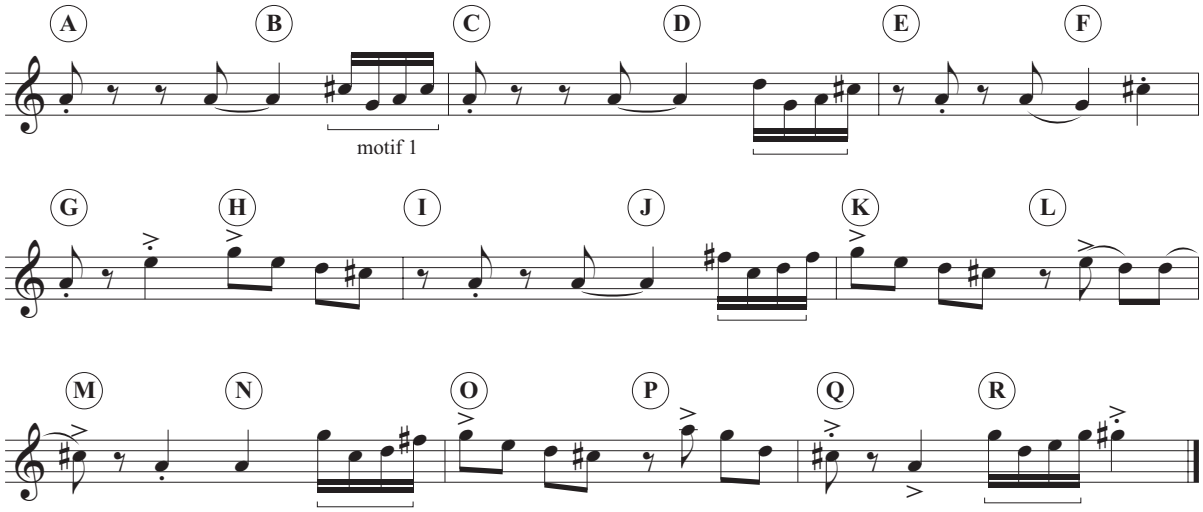


Table 4 shows the arrangement of the segments and manipulations. Parallel processes - such as segmenting, reversing, or time manipulation - were applied to both the music and accompanying video. The video angles used, as well as the form of the given segment - prime, retrograde, inversion, or retrograde inversion - are indicated in the table as well. Sometimes a percentage of tempo is given; for example, since the content of video clips was at 144 BPM, a 200% clip would speed by at 288. In the opening segment, videos are layered on top of each other in visual canon; in these cases the Avenue 4 layer number is indicated. In all other cases, the layer number is 1.

Table 4 - video clip assignment and Theme A segmentation, final section

Measure Number	**Pre-recorded Video Angles**			
	wide	**tight - piano**	**tight - xylophone**	**tight - viola**
299 (rehearsal N)	Full prime (1) **C6**			
309		Full prime, layer 1 (2) **C#6**		

Measure Number	Pre-recorded Video Angles			
	wide	tight - piano	tight - xylophone	tight - viola
312		Full prime, layer 2 (3) **D6**		
315			Full prime, layer 3 (4) **D#6**	
321			Full prime, layer 4 (5) **E6**	
323, and of 3			Full retrograde (6) **F6**	
333 (rehearsal Q)				Inversion segments A-H (7) **F#6**
336, and of 4				Retrograde inversion segments A-H (8) **G6**
343 (rehearsal R)	Prime segments A-D, stuck on “a” of beat 4 in m 345 (9) **G#6**			
346	Prime segments E - J (10) **A6**			
349	Prime segment K 66% (11) **A#6**			
349 beat 3	Prime segments L-R (12) **B6**			
353	Prime Loop last beat of segment R for 5 quarter notes (13) **C7**			
354 and of 2	stretch last beat of R for 2.5 beats (14) **C#7**			
356-357 beat 3				Prime beginning of segment R 25% (15) **D7**
357 beat 3			Prime beginning of segment R loop each 16th 4x in first 3 beats(16) **D#7**	
358 beat 3				Prime beginning of segment R 25% (15) **D7**

Measure Number	Pre-recorded Video Angles			
	wide	tight - piano	tight - xylophone	tight - viola
359 beat 3			Prime beginning of segment R loop each 16th 4x in first 3 beats(16) **D#7**	
360				Prime beginning of segment R 33% (17) **E7**
360 beat 3		Prime beginning of segment R 25%, or loop each 16th 3x in first 3 beats? (18) **F7**		
361 beat 3	Prime beginning of segment R 20%, (19) **F#7**			
363				Merged Prime segments G, O, P (20) **G7**
364 beat 4				Retrograde Merged above (21) **G#7**
366 Beat 3	Merged Prime segments G, O, P (22) **A7**			
368 beat 2	Retrograde Merged above (23) **A#7**			
370 (Rehearsal T)		Prime segment A (24) **B7**		
370 beat 3		Prime segment B (25) **C8**		
371		Prime segment A (24) **B7**		
371 beat 3		Prime segment A (24) **B7**		
372		Prime segment E (26) **C#8**		
372 beat 3		Prime segment F (27) **D8**		
373			Prime segment G-H 200% (28) **D#8**	

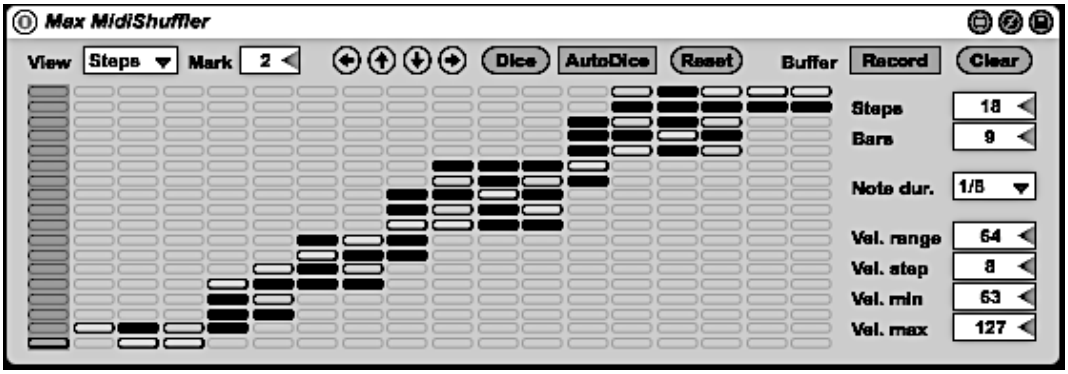
Measure Number	Pre-recorded Video Angles			
	wide	**tight - piano**	**tight - xylophone**	**tight - viola**
373 beat 3		Prime segment I (26) **C#8**		
374		Prime segment I (26) **C#8**		
374 beat 3		Prime segment K (29) **E8**		
375		Prime segment J (30) **F8**		
375 beat 3		Prime segment M (31) **F#8**		
376		Prime segment N (32) **G8**		
376 beat 3		Prime segment O (29) **E8**		
377-379 all beats 1 and 3			Prime segment R (33) **G#8**	

Sometimes, choosing the appropriate angle for a given segment was a clear process. For example, during the canon beginning at measure 309, I felt that the correlation of video to performance needed to be literal: I layered the video clips of the pianist's hands on top of each other at each entrance of the piano and then the video of the percussionist's hands at the entrances of the xylophone. As the triggering became more involved, the choice of angles became more difficult. If there was no angle of the featured instrument, such decisions were less clear. For example, at measure 343, the flute player is performing Theme A with interruptions from the violist. I chose to have the flute player's sound correlate with a wide shot of the entire ensemble in visual counterpoint to the solo sound. In other cases, I chose angles that correlated with range of a featured instrument or complimented the sound of that section.

Focusing on the end of this section, beginning at measure 370, the clarinet plays a melody comprised of a shuffling of the A theme segments. This new melody was generating using a MIDI

device in Ableton Live which rearranges a midi file using a given step size provided by the user. I limited the function of the device by implementing parameters that directed it to move progressively through the melody, but with the option of choosing two to five segments from around the segment it was stepping through - a random walk through the theme. Below, in Figure 7, is an image of the device, each column representing one step (2 beats), and each row representing one segment of the melody's 18 segments, the first on the bottom row and last on the top. Parameters listed on the right side were ignored except for the number of steps (18) and bars (9). The dark grey rectangles represent the segments from which I allowed the device to choose and the grey segments with a bold outline represent the segments it did choose.

fig. 7 MIDI shuffler device



This result is the fourth of ten generated with this method and is the material performed by the clarinet and piccolo at measure 270. The only changes made to this result were the speeding up of the G and H segments in steps eight and nine by 200% and the repetition the final step for three measures to serve as a transition to the next section.

VI. Reflection on the Premiere

A. Performance

This piece was premiered alongside four other pieces of mine in a concert of my works. Jonathan, the soloist, was electrifying on stage and the ensemble kept up brilliantly. The electronics

were less successful - some elements, like the photo processing software, crashed; some worked unexpectedly, producing feedback or sounds at unintended volumes; and some were introduced too late in the compositional process to feel like fully developed and organic ideas. Addressing these issues will be the next phase of this work.

I was pleased that the final section, which I outlined in depth above, did resonate with the audience. Based on feedback I received, the concept and visualizations translated in the way I intended them to. Audience members commented specifically about their appreciation of the correlations between the video clips and ensemble material. The instances that contained sampled or fixed media proved to be successful as well. The problems lay mostly with the live electronics and video improvisation sections.

B. Updates and Revisions

In the hopefully long life-span of this work, I will regard this initial performance as a “beta test” of the piece. Based on the outcome of this concert, the piece will be further revised and refined in order to create a more streamlined and clear experience for the audience.

The battle between fixed media and live processing is one with which I am constantly struggling. In this piece, the most successful electronics implementations were those that were prefigured and fixed. The next iteration of the work will contain substantially more fixed media than live processed sound. I’ve revised other pieces of mine similarly with excellent results. Additionally, any live processing done in the next version will likely only be of the sound of the viola instead of entire ensemble. This both helps to feature the soloist and achieve a much more predictable result with less chance for feedback and a more easily controlled, replicable system. The performance also showed that the electronics can play a larger, more consistent role throughout the piece in order to sound more natural and unified with the instrumentalists in the work.

For portability and mobility, another version of this work will be created without the video component, widening the reach of the piece to more ensembles. For those who do wish to do the

video portion, the process will be simplified and made more accessible. It is unreasonable to expect that other ensembles or performers will have access to exactly the same software that I do. The next phase of the piece will also include the research and development of a single piece of software to control all video and audio needs.

VII. CONCLUSION

Though grand in concept and execution, *At Any Point* has the same simple goal as much of my work - to connect with audience members and to evoke emotion from them. In struggling to straddle a line between academia and populism, I've found that giving audience members something to grab on to, like the idea of physical time, the use of their smartphones, or sampled speech, invites them to listen to and experience the piece in a way they may not have before while freeing up the composer to experiment without alienating listeners. While we are told never to use our phones in a classical concert, *At Any Point* celebrates and embraces them in a time when we are at once conflicted about their roles in our lives and dependent on them. We want to document moments and memories, but are worried about the implications of that desire. With this work, I hope to show how these new pieces of technology can expand our creative palate in new ways.

Today, likely due to advancement in technology and a rise in interest in science and physics, the fantasy of time travel is prevalent in movies, books, and pop culture. Both musically and visually, *At Any Point* delves into this fantastic idea that we are unlikely to ever experience in reality. With this piece I hope to give the audience a fresh take on this often revisited concept and immerse them in an experience that is both enjoyable and thought-provoking.

Appendix:

I. *At Any Point* score

AT ANY POINT (2016)

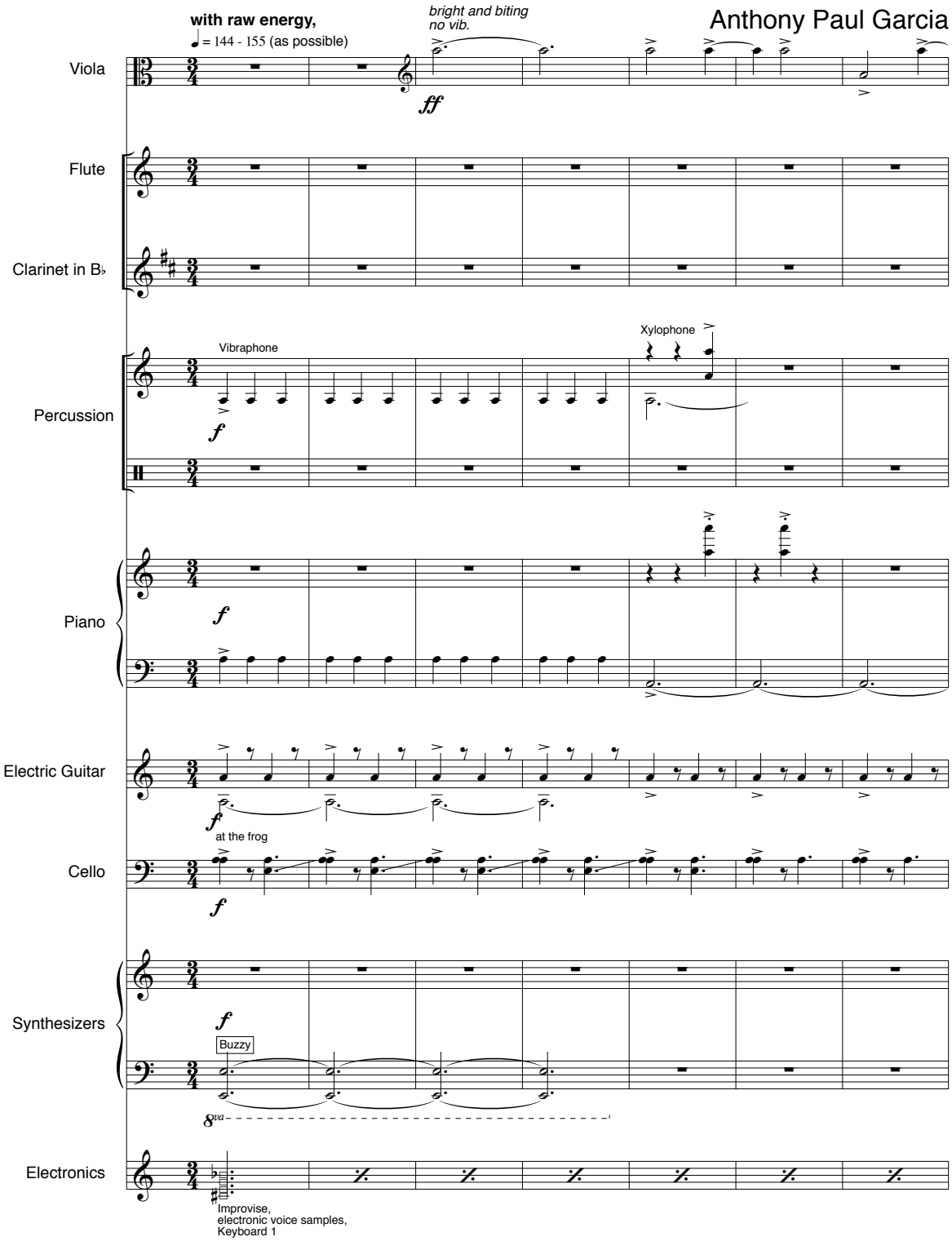
for viola solo, chamber ensemble, live video, and electronics

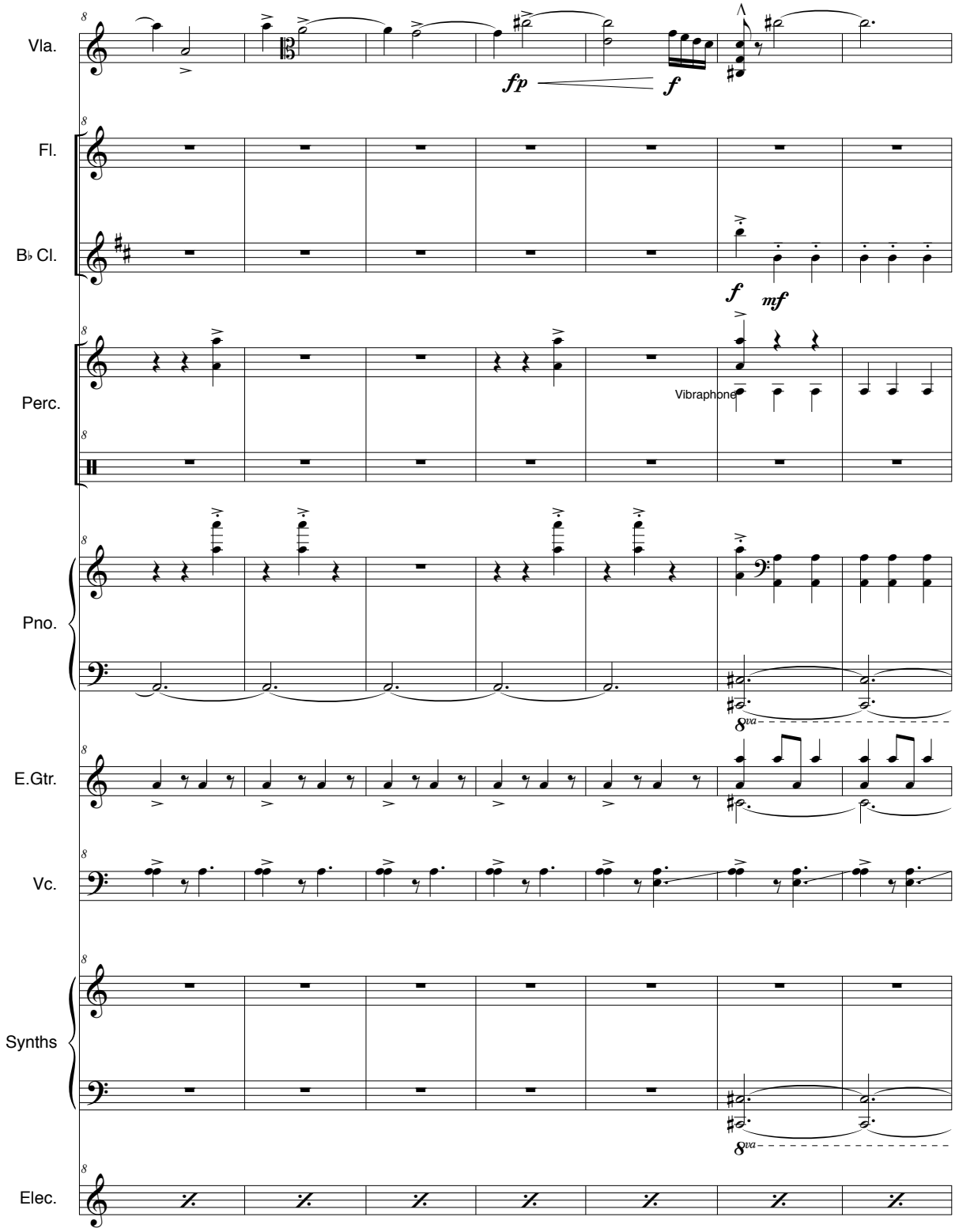
Premiered March 5th, 2016 by Jonathan Morgan, viola, and the Now Hear Ensemble conducted by Federico Llach at the Museum of Art, Design, and Architecture, University of California, Santa Barbara

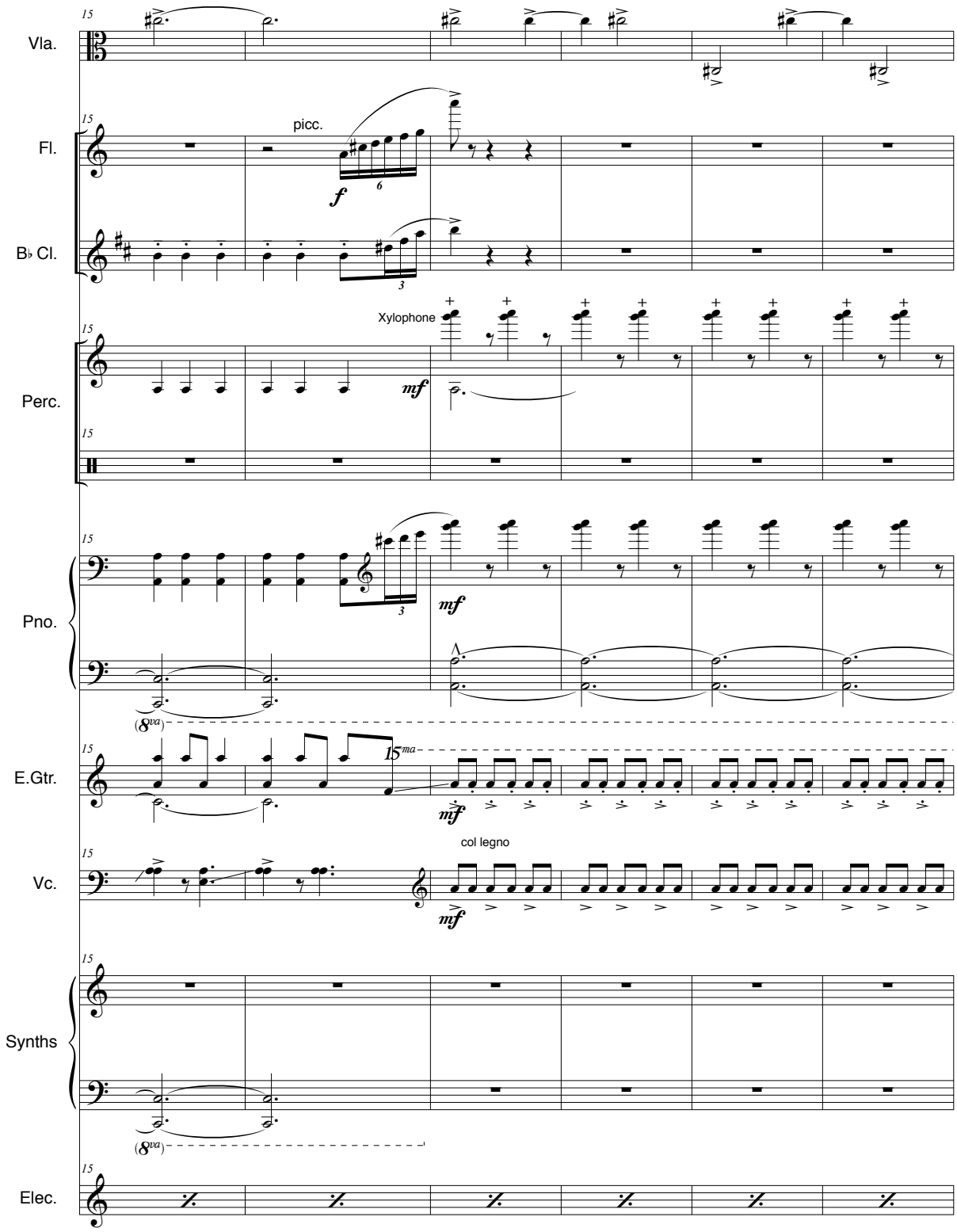
Score

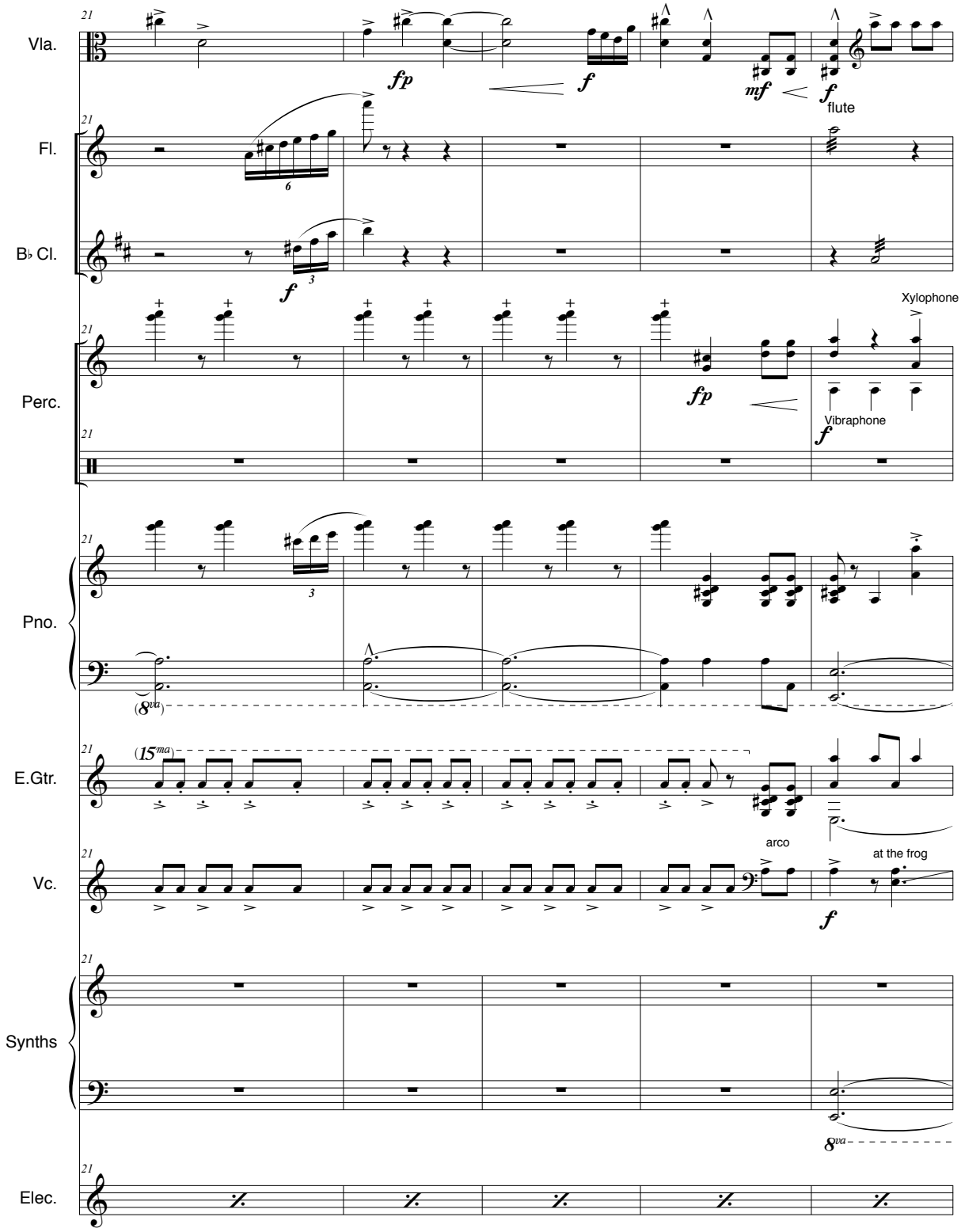
At Any Point

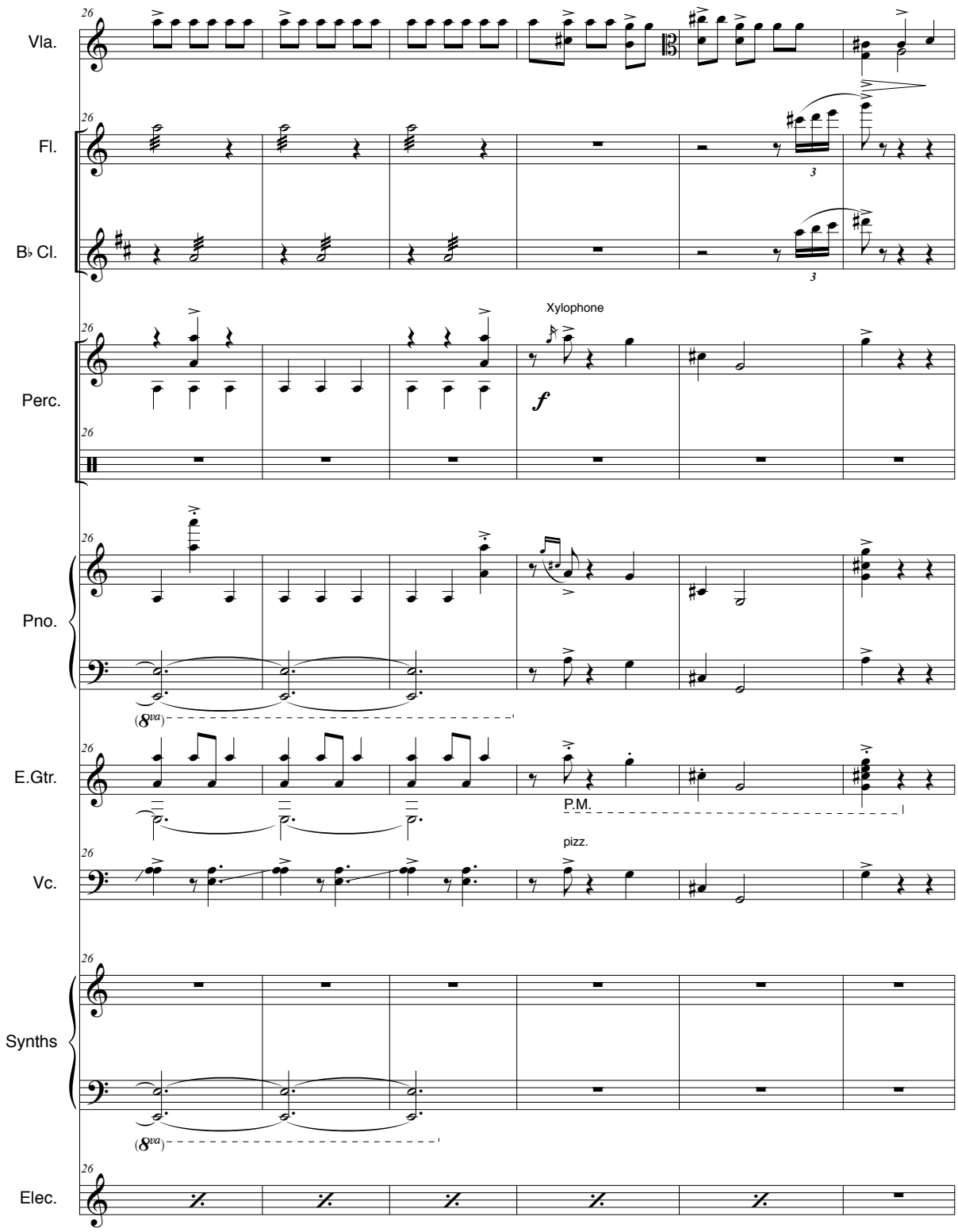
for Jonathan Morgan

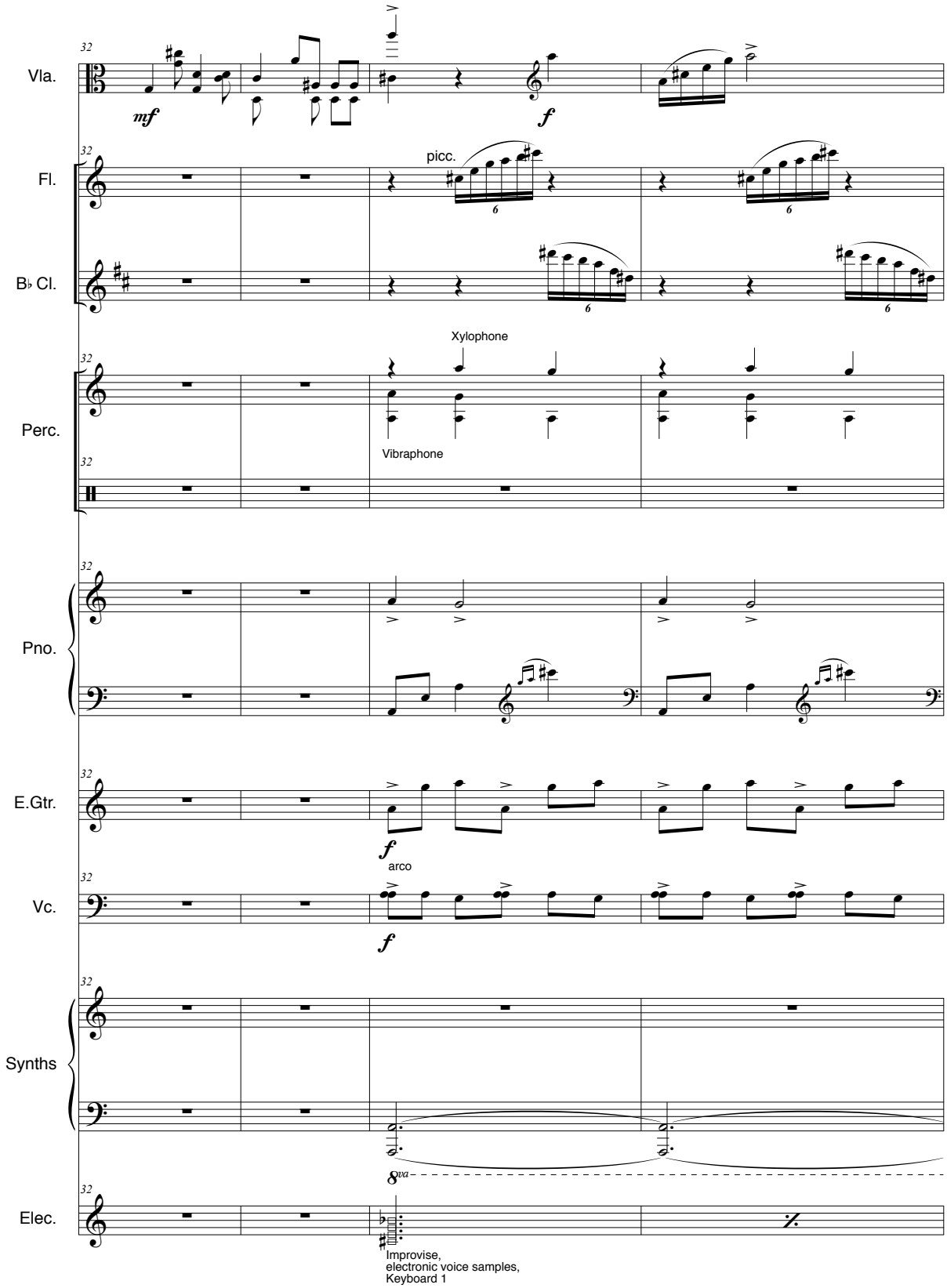


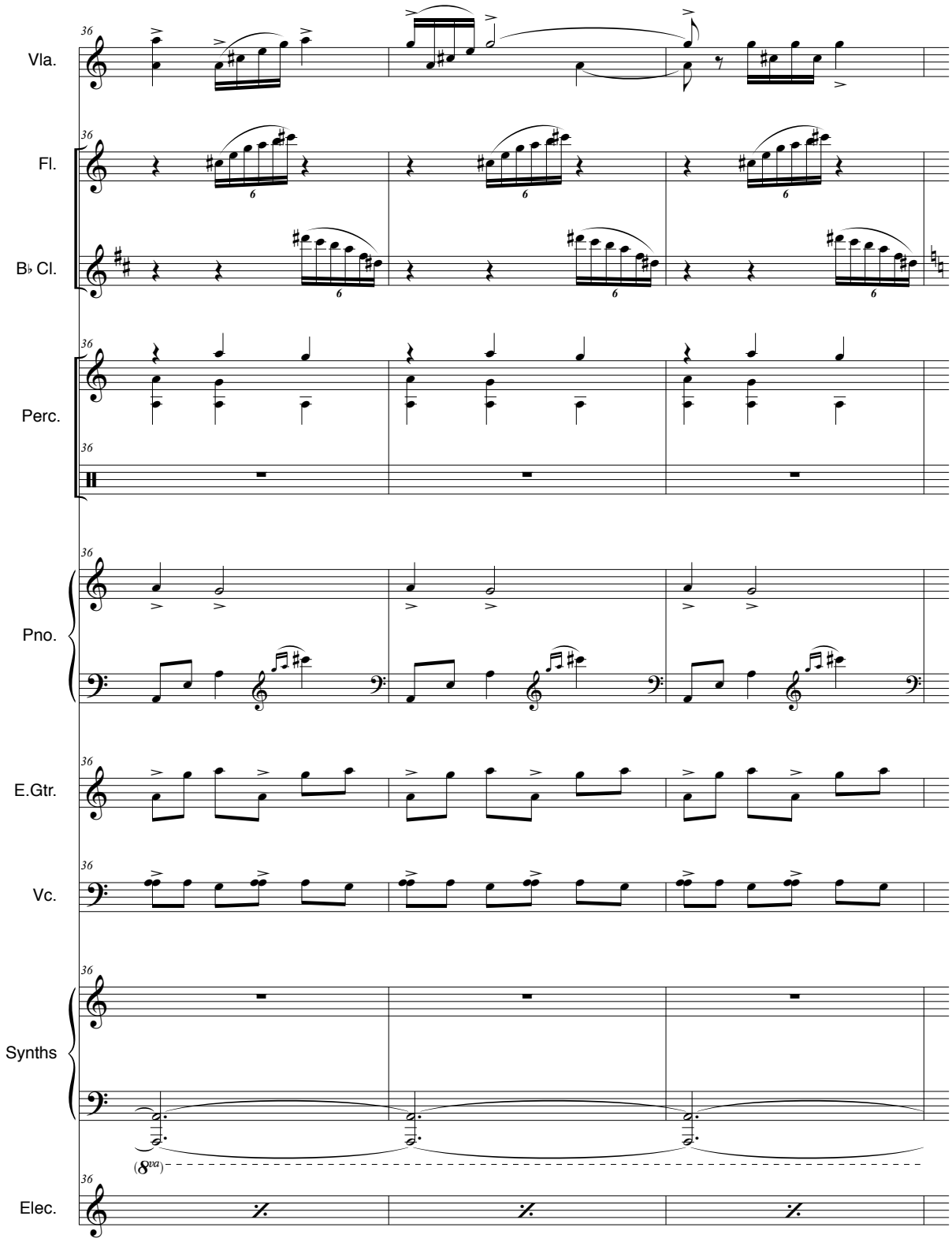

Vla.
Fl.
B♭ Cl.
Perc.
Vibraphone
Pno.
E.Gtr.
Vc.
Synths
Elec.
fp
f
f
mf
8va
8va

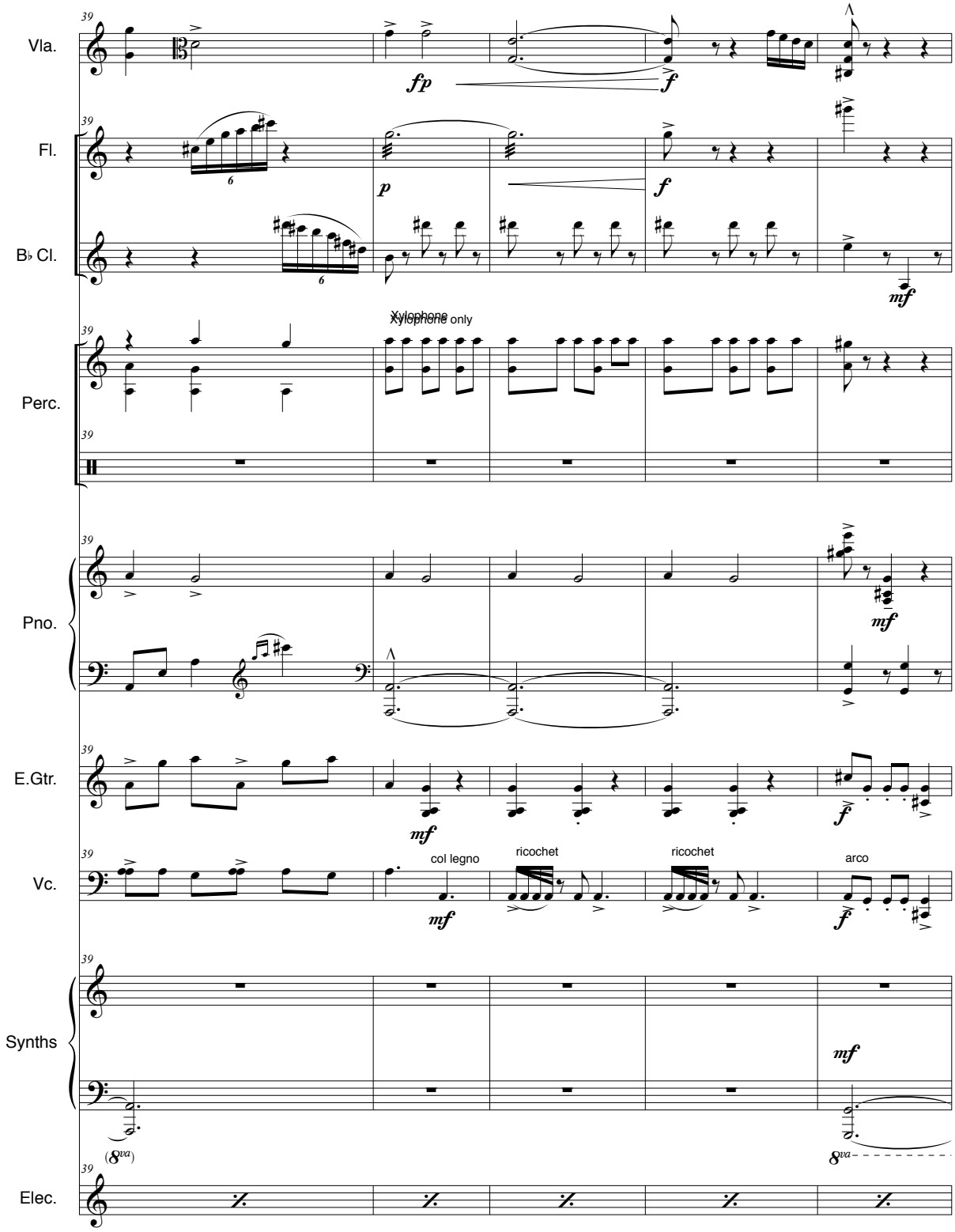

Vla.
Fl.
picc.
B♭ Cl.
Perc.
Xylophone
Pno.
E.Gtr.
Vc.
col legno
Synths
Elec.

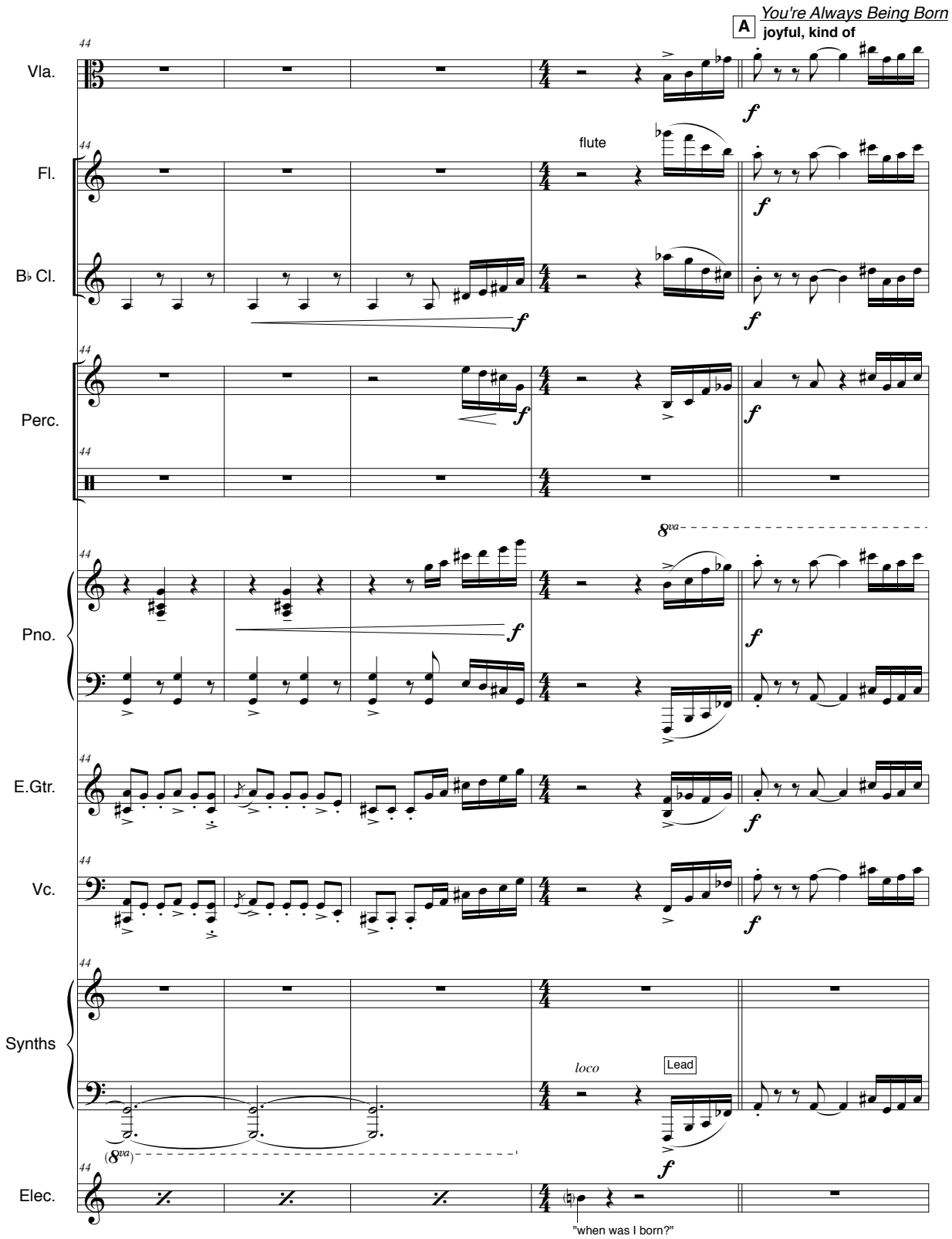

Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
21
fp
f
mf
flute
Xylophone
Vibraphone
arco
at the frog
8va
15ma

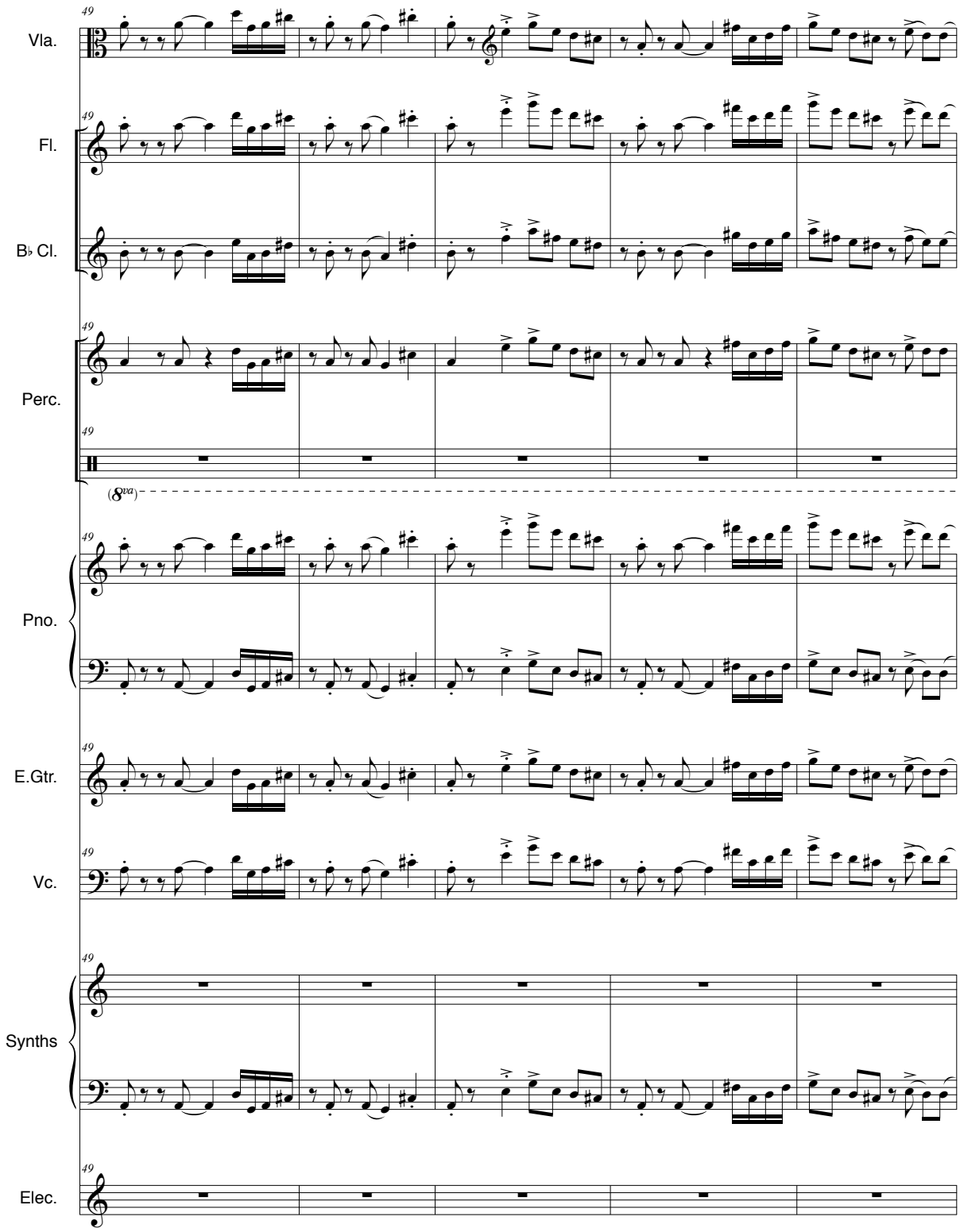

Vla.
Fl.
B♭ Cl.
Perc.
Xylophone
Pno.
E.Gtr.
P.M.
Vc.
pizz.
Synths
Elec.

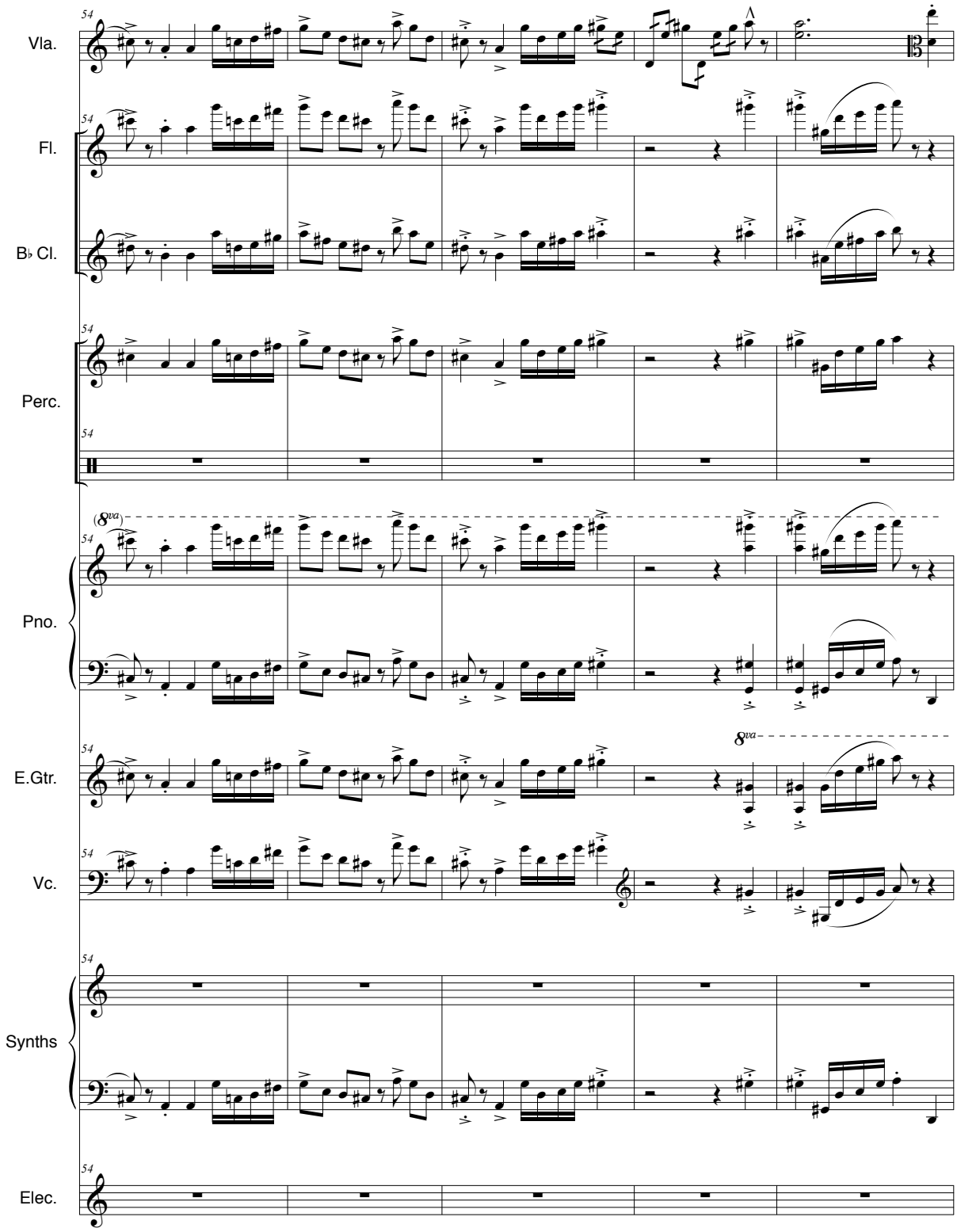

32
Vla.
mf
f
Fl.
picc.
B♭ Cl.
Perc.
Xylophone
Vibraphone
Pno.
E.Gtr.
f
arco
Vc.
f
Synths
8va
Elec.
Improvise,
electronic voice samples,
Keyboard 1

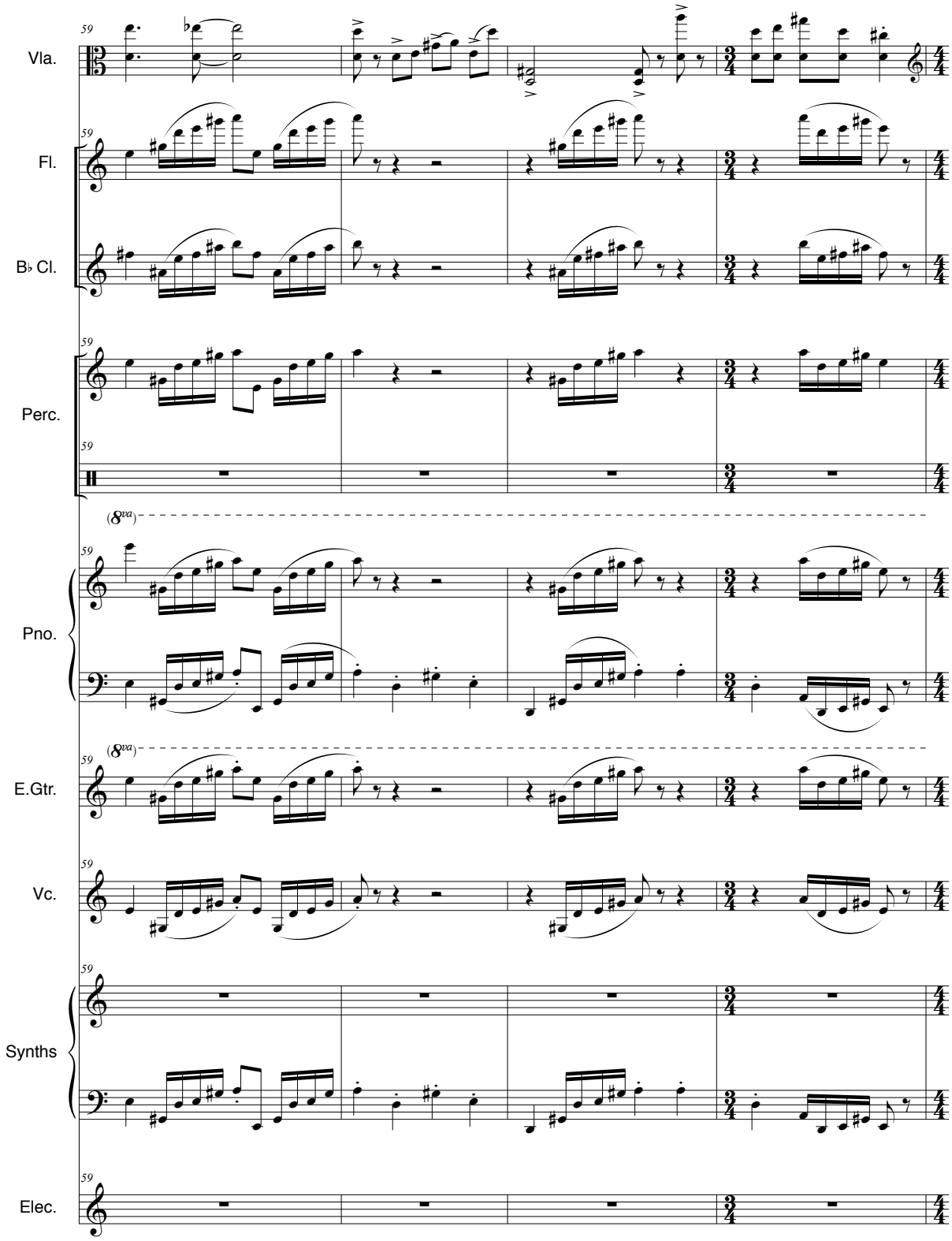

Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
36
(8va)

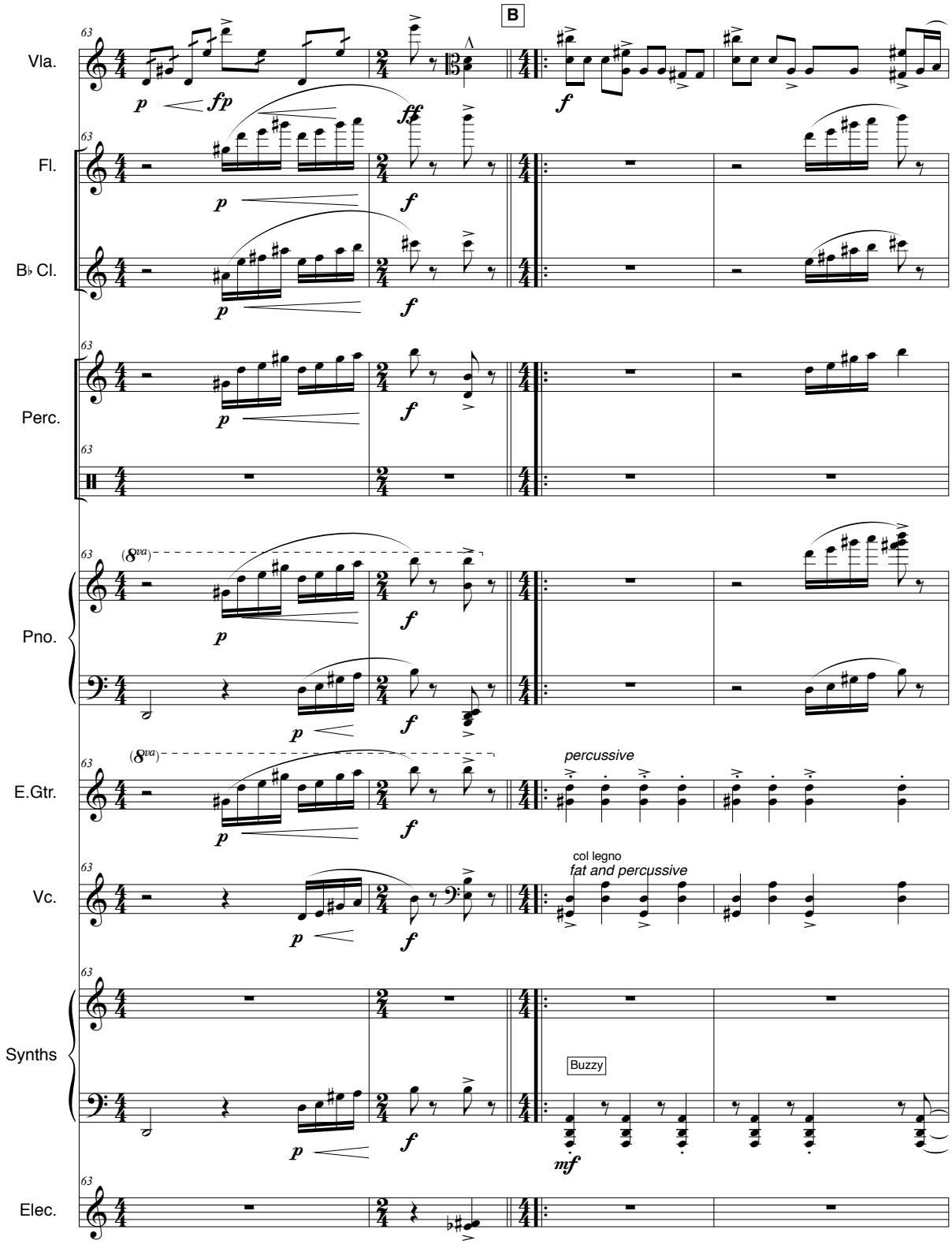

39
Vla.
fp
f
Fl.
p
f
B♭ Cl.
mf
Perc.
Xylophone
Xylophone only
Pno.
mf
E.Gtr.
mf
f
Vc.
col legno
ricochet
ricochet
arco
mf
f
Synths
mf
(8va)
8va
Elec.

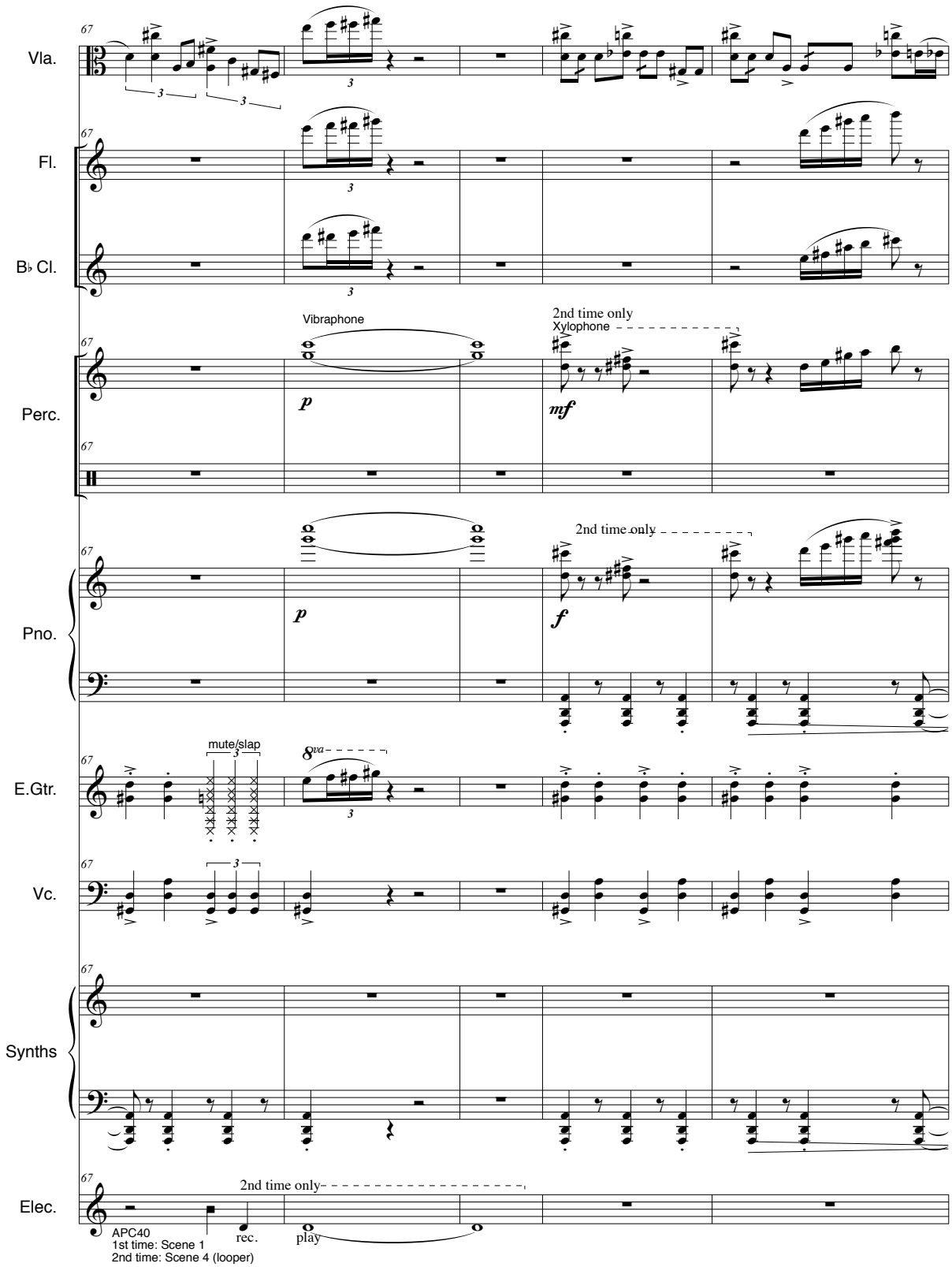

A
You're Always Being Born
joyful, kind of
Vla.
Fl.
flute
B♭ Cl.
Perc.
Pno.
8va
E.Gtr.
Vc.
Synths
loco
Lead
(8va)
Elec.
"when was I born?"

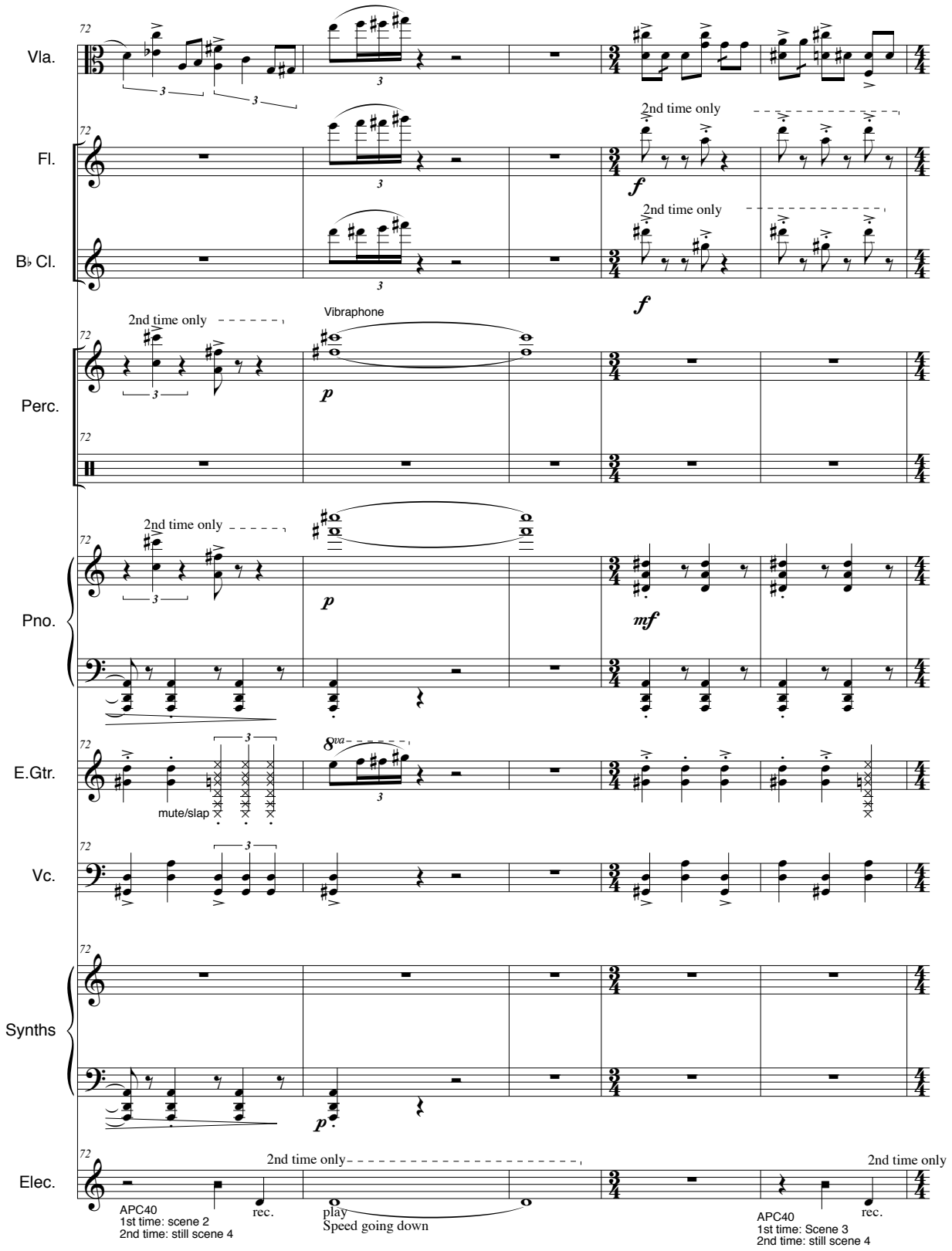

Vla.
Fl.
B♭ Cl.
Perc.
(8va)
Pno.
E.Gtr.
Vc.
Synths
Elec.

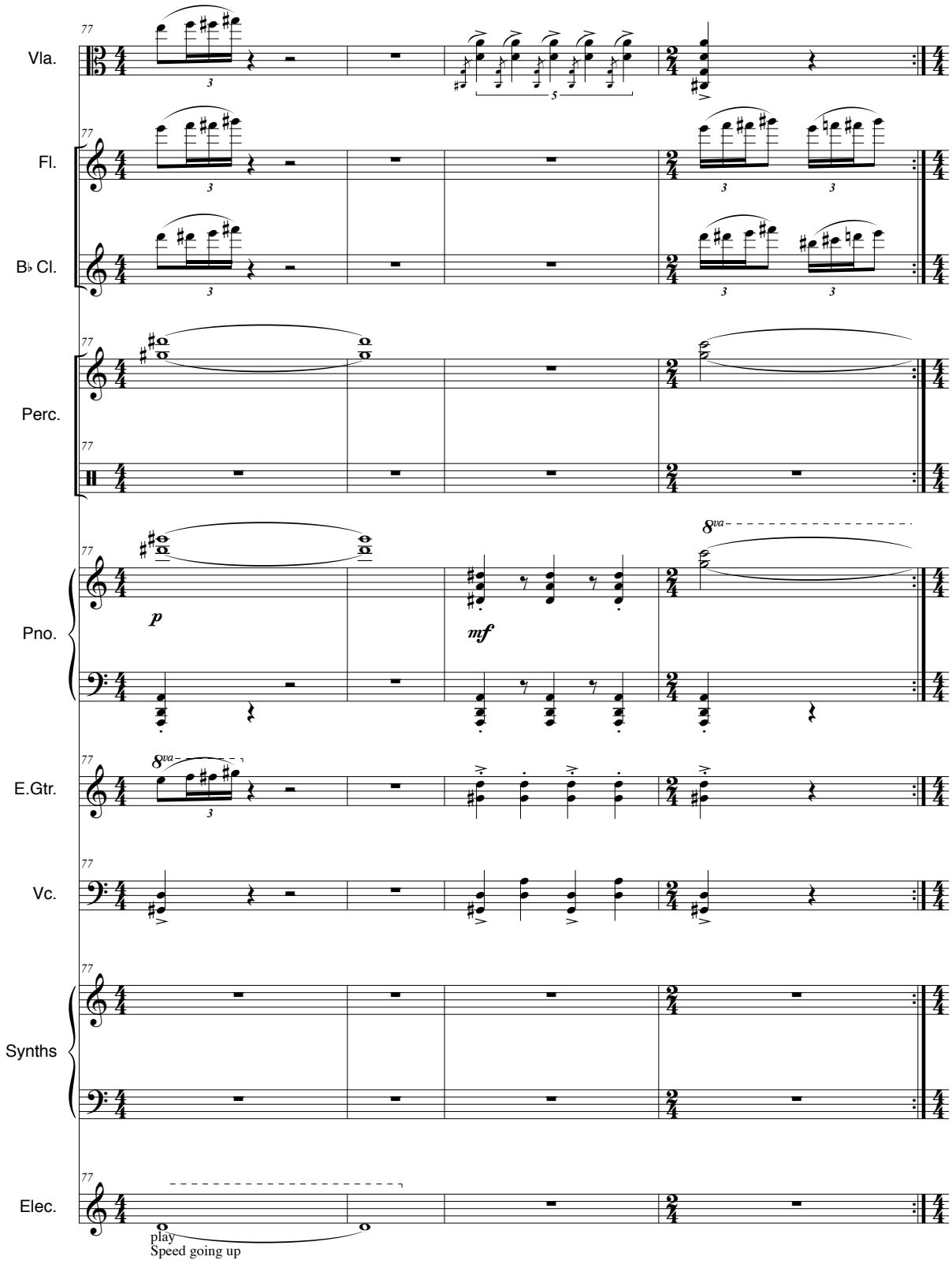

Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
54
8va

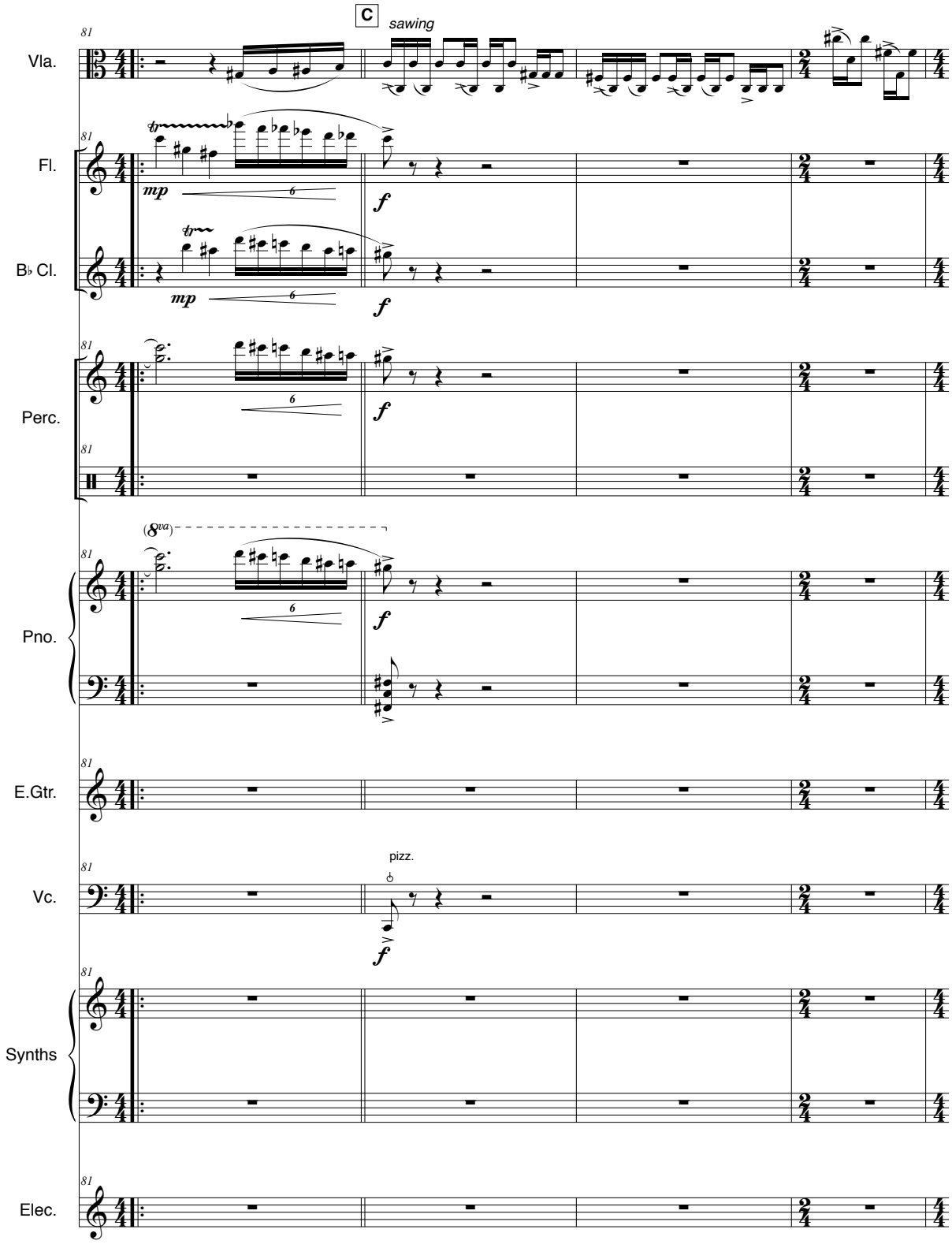

59
Vla.
Fl.
B♭ Cl.
Perc.
(8va)
Pno.
E.Gtr.
Vc.
Synths
Elec.

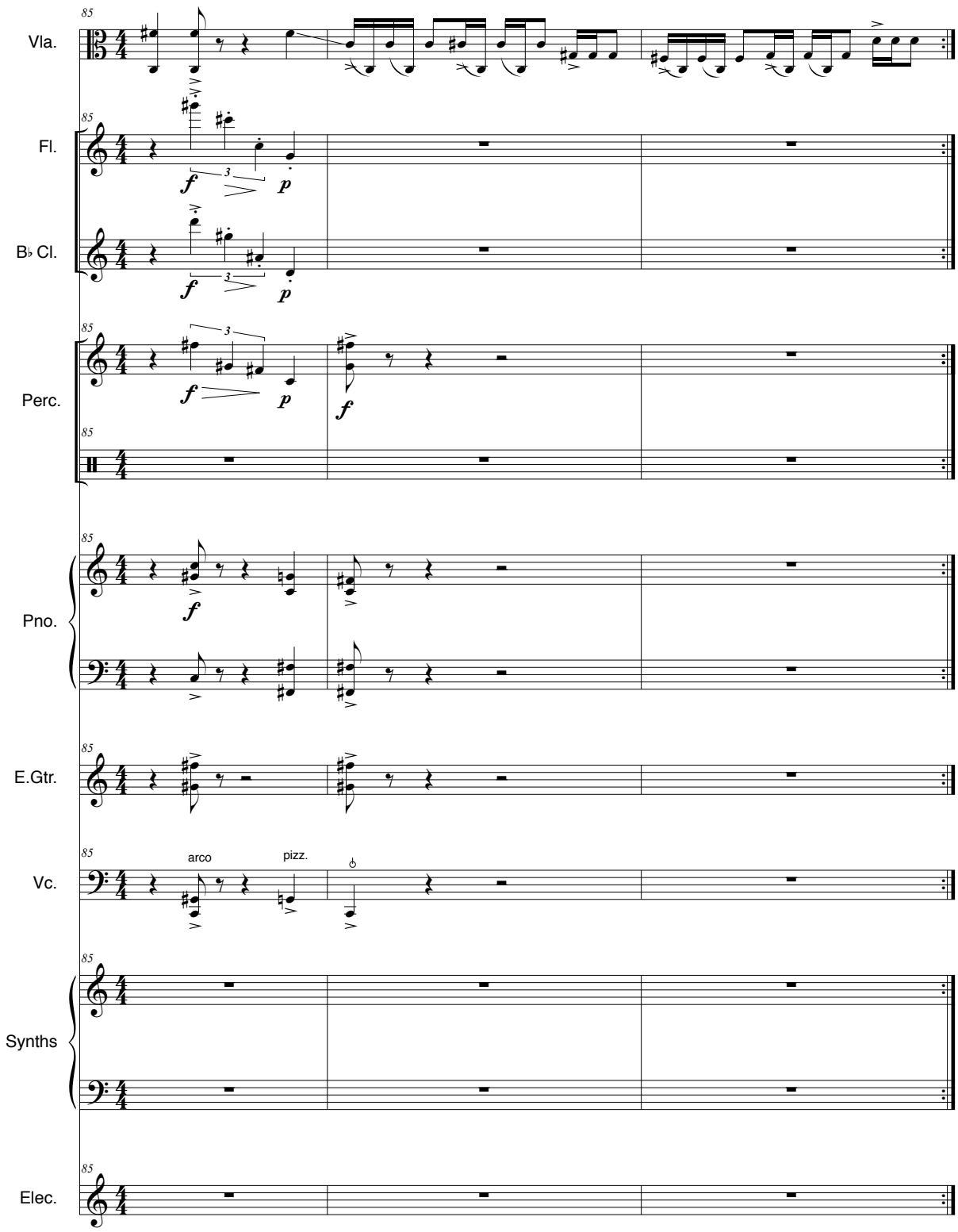

B
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
(8va)
percussive
col legno
fat and percussive
Buzzy

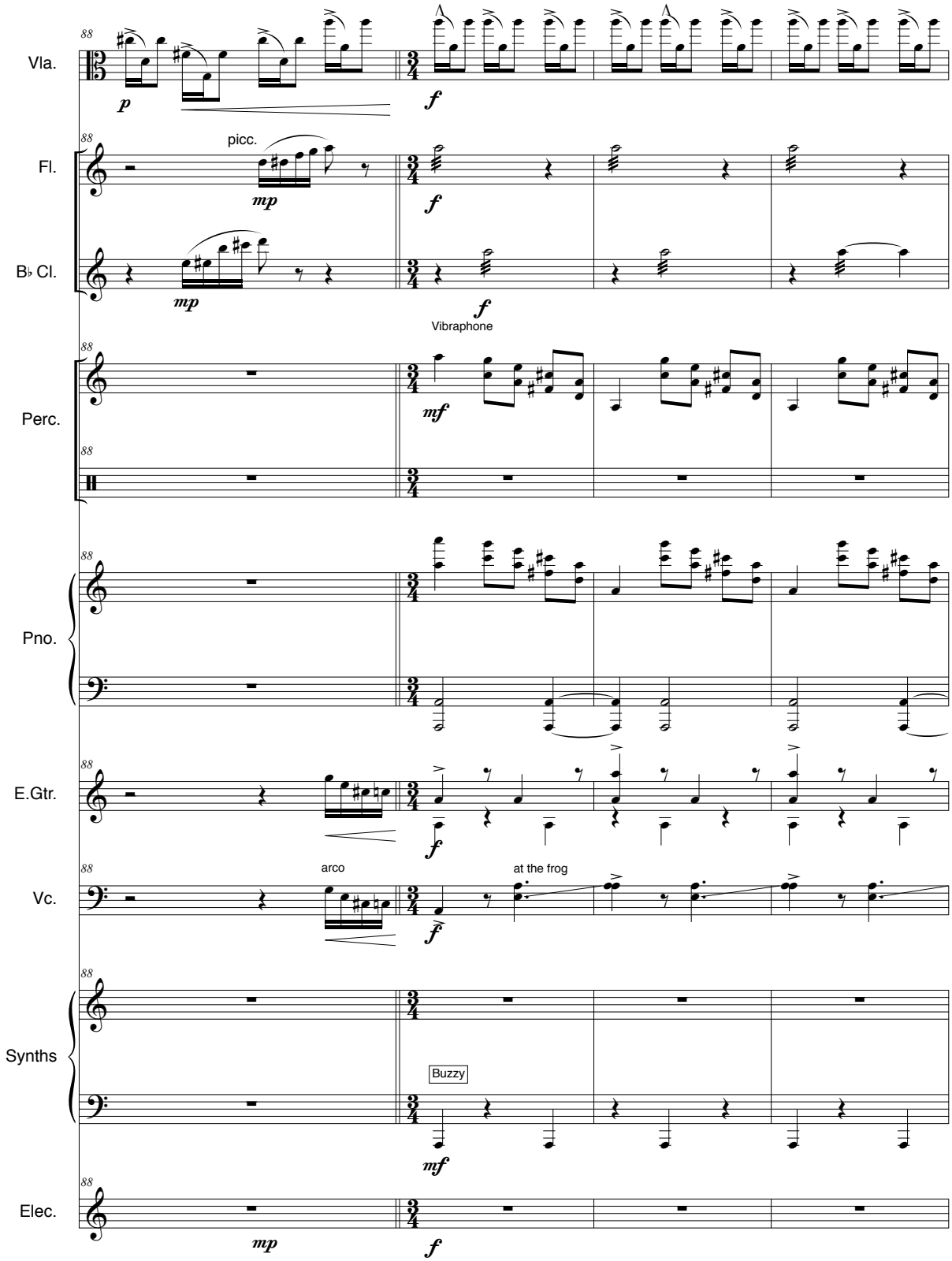

Vla.
Fl.
B♭ Cl.
Perc.
Vibraphone
2nd time only
Xylophone
Pno.
2nd time only
E.Gtr.
mute/slap
Vc.
Synths
Elec.
2nd time only
APC40
1st time: Scene 1
2nd time: Scene 4 (looper)
rec.
play

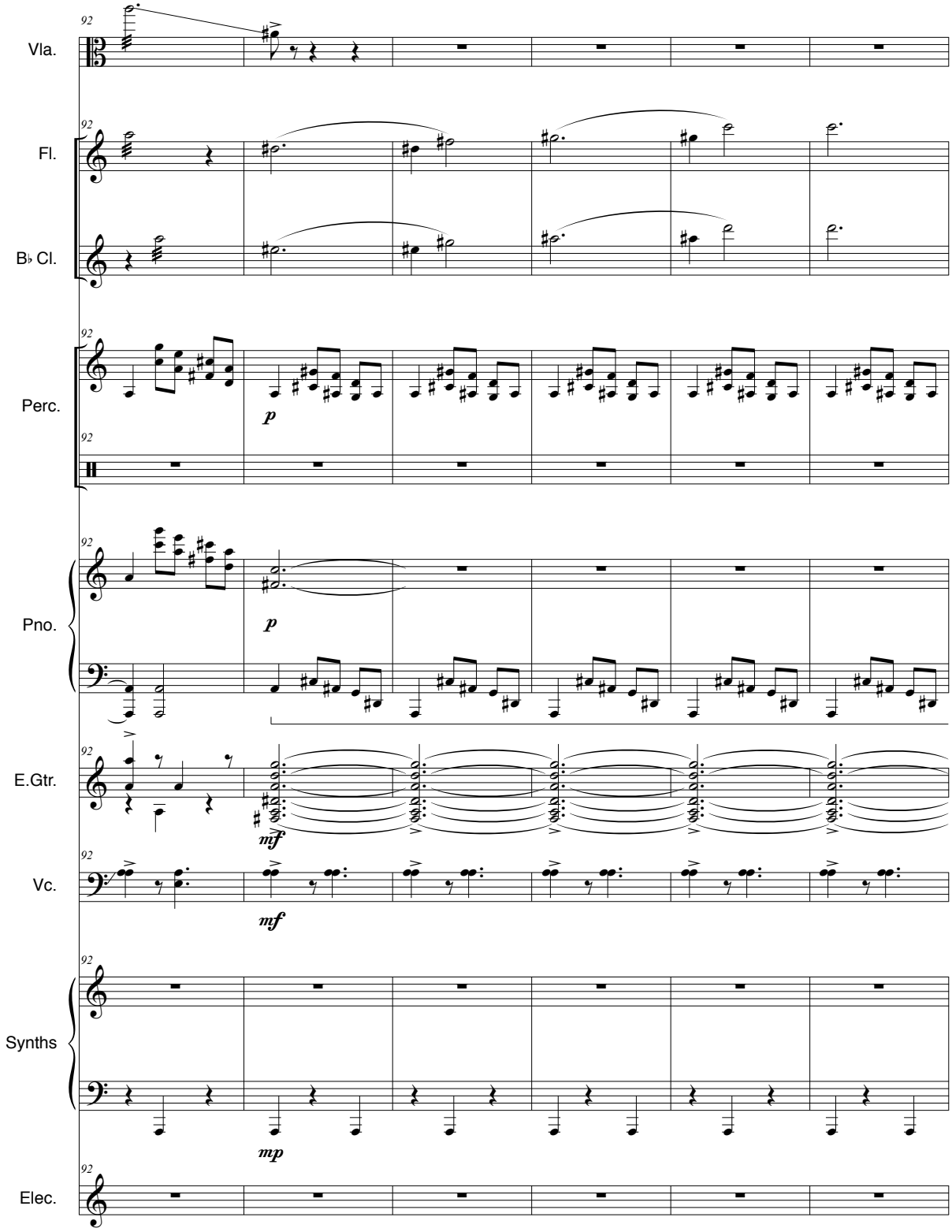

Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
72
2nd time only
Vibraphone
mute/slap
8va
APC40
1st time: scene 2
2nd time: still scene 4
rec.
play
Speed going down
APC40
1st time: Scene 3
2nd time: still scene 4

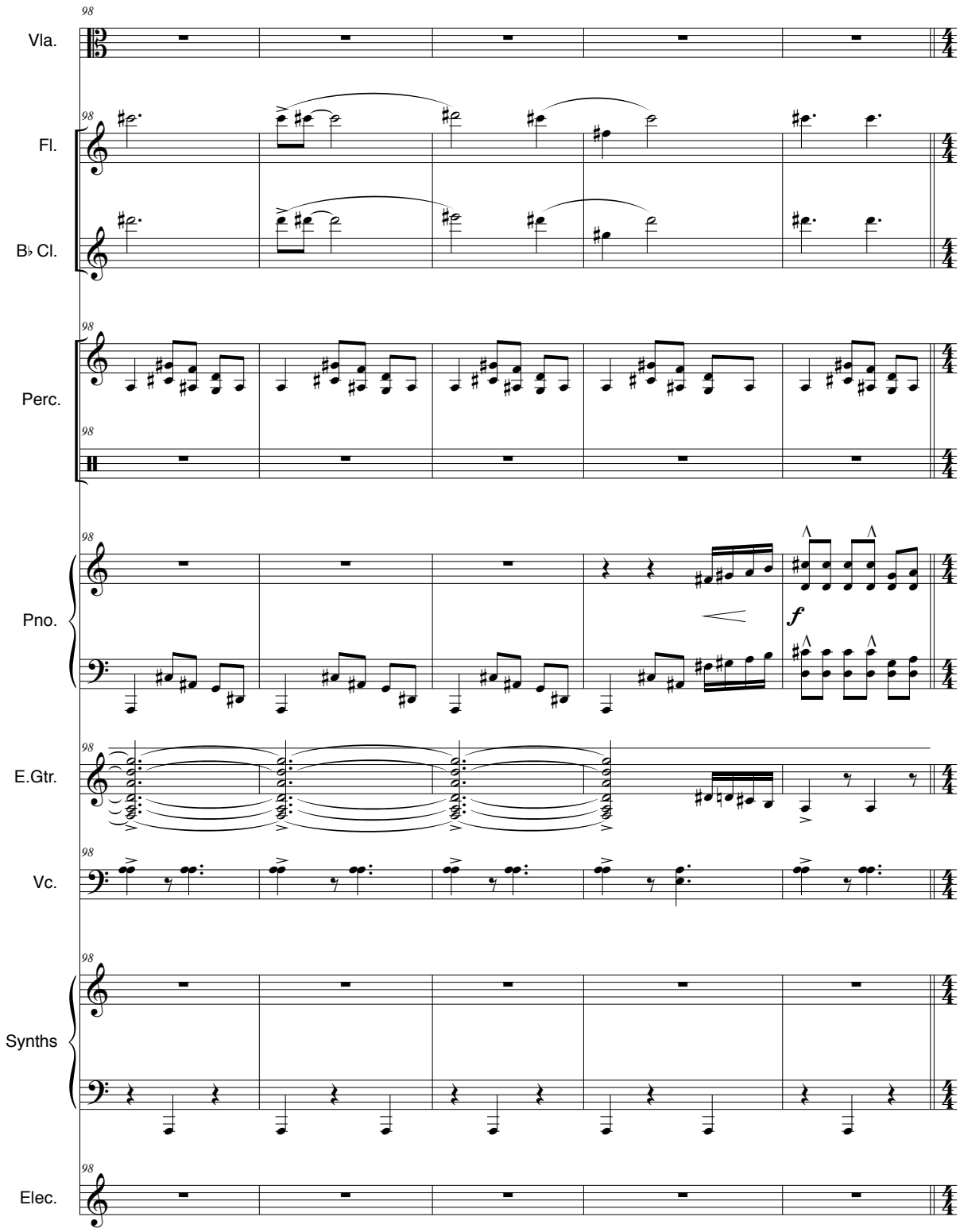

77
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
p
mf
8va
play
Speed going up

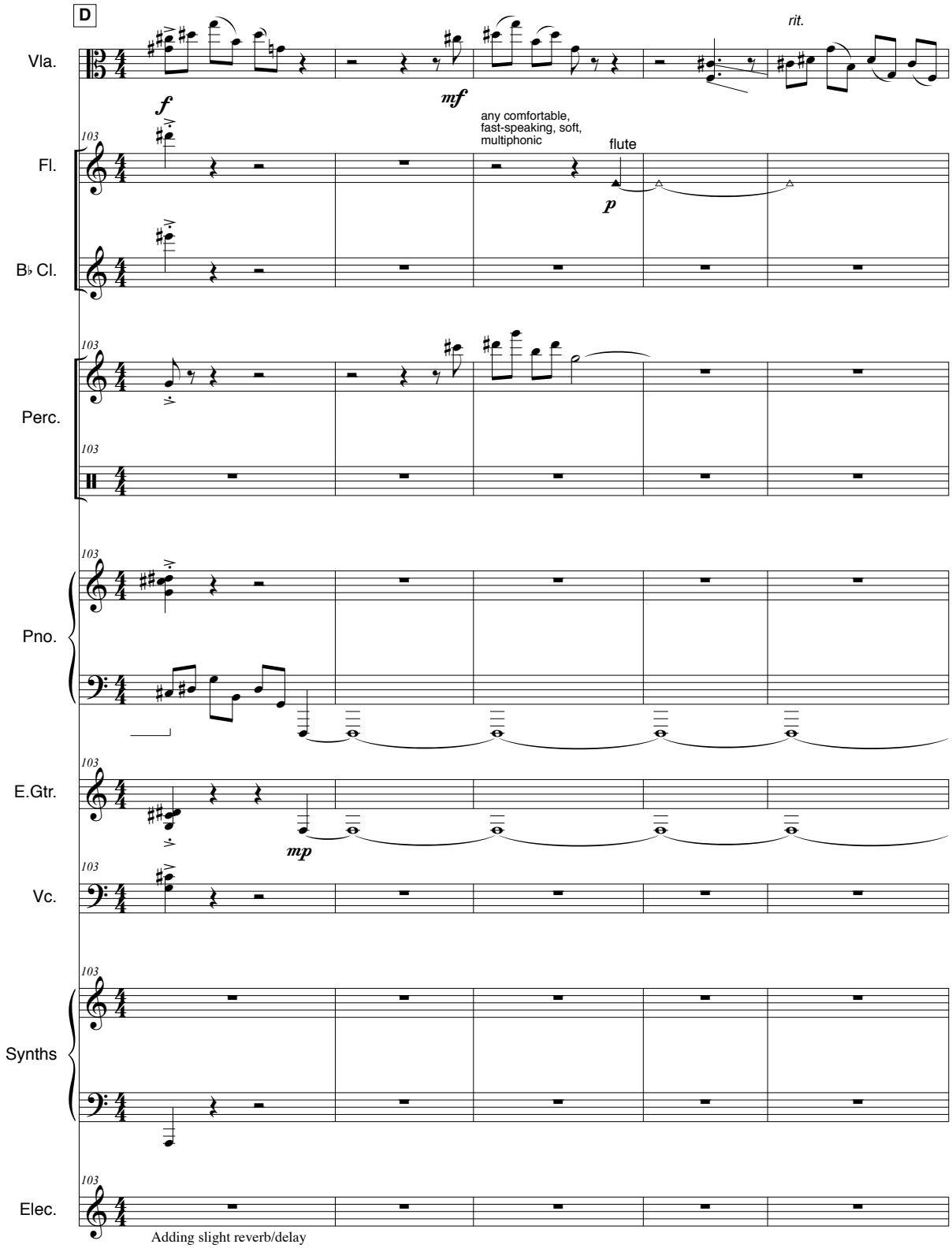

C
sawing
81
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
mp
f
(8va)
pizz.

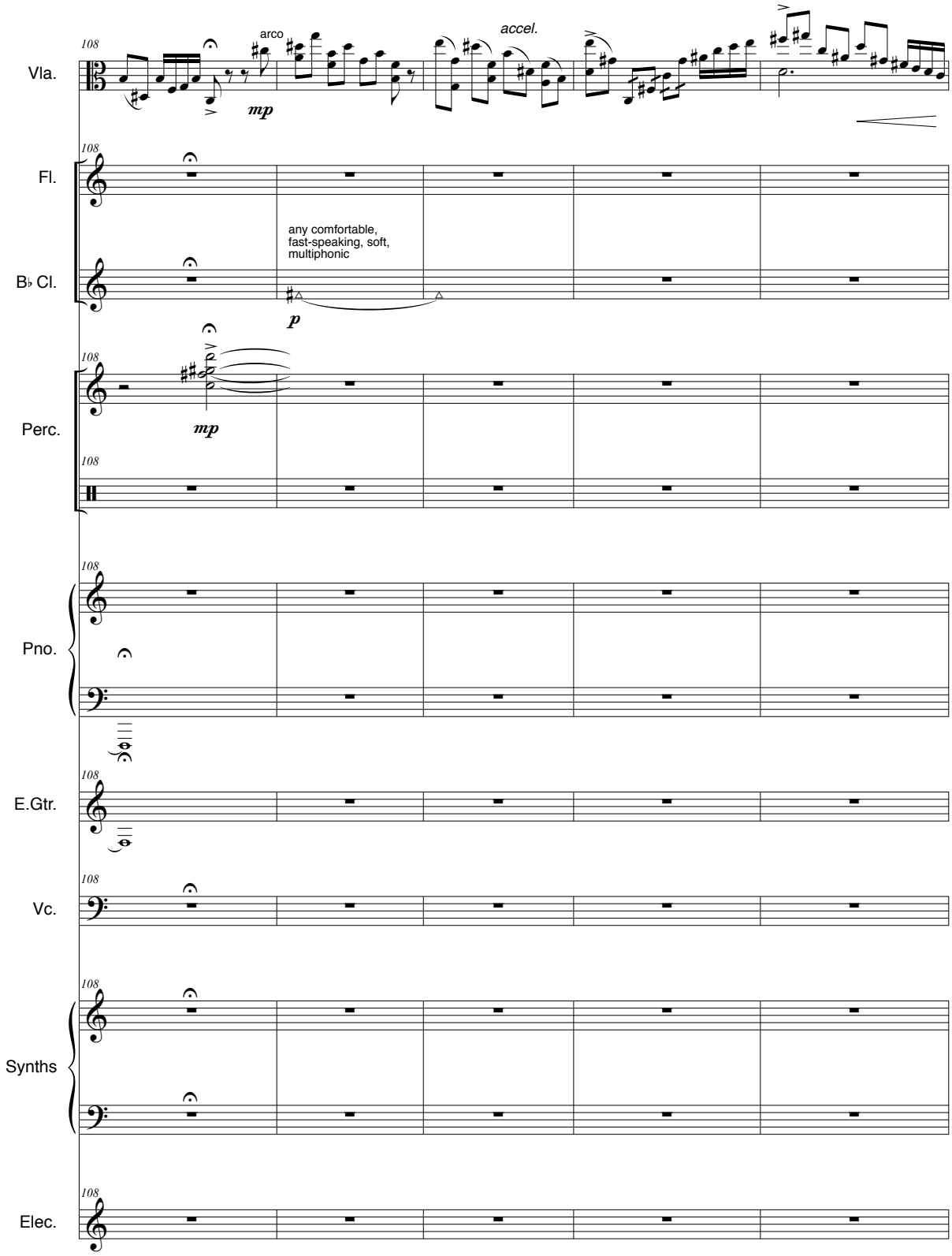

Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
arco
pizz.
Synths
Elec.

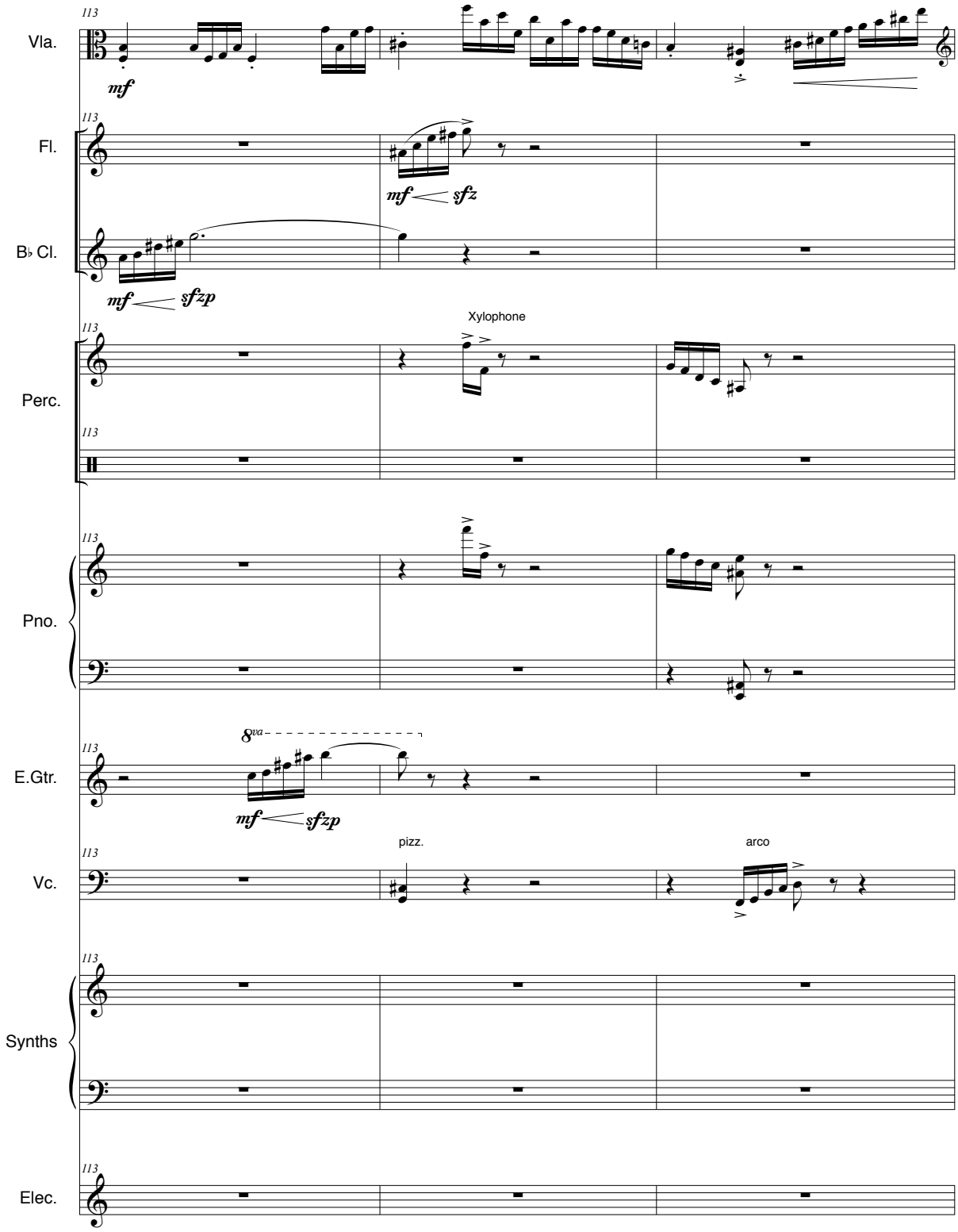

to-----> s.
Vla.
Fl.
picc.
B♭ Cl.
Vibraphone
Perc.
Pno.
E.Gtr.
arco
at the frog
Vc.
Synths
Buzzy
Elec.

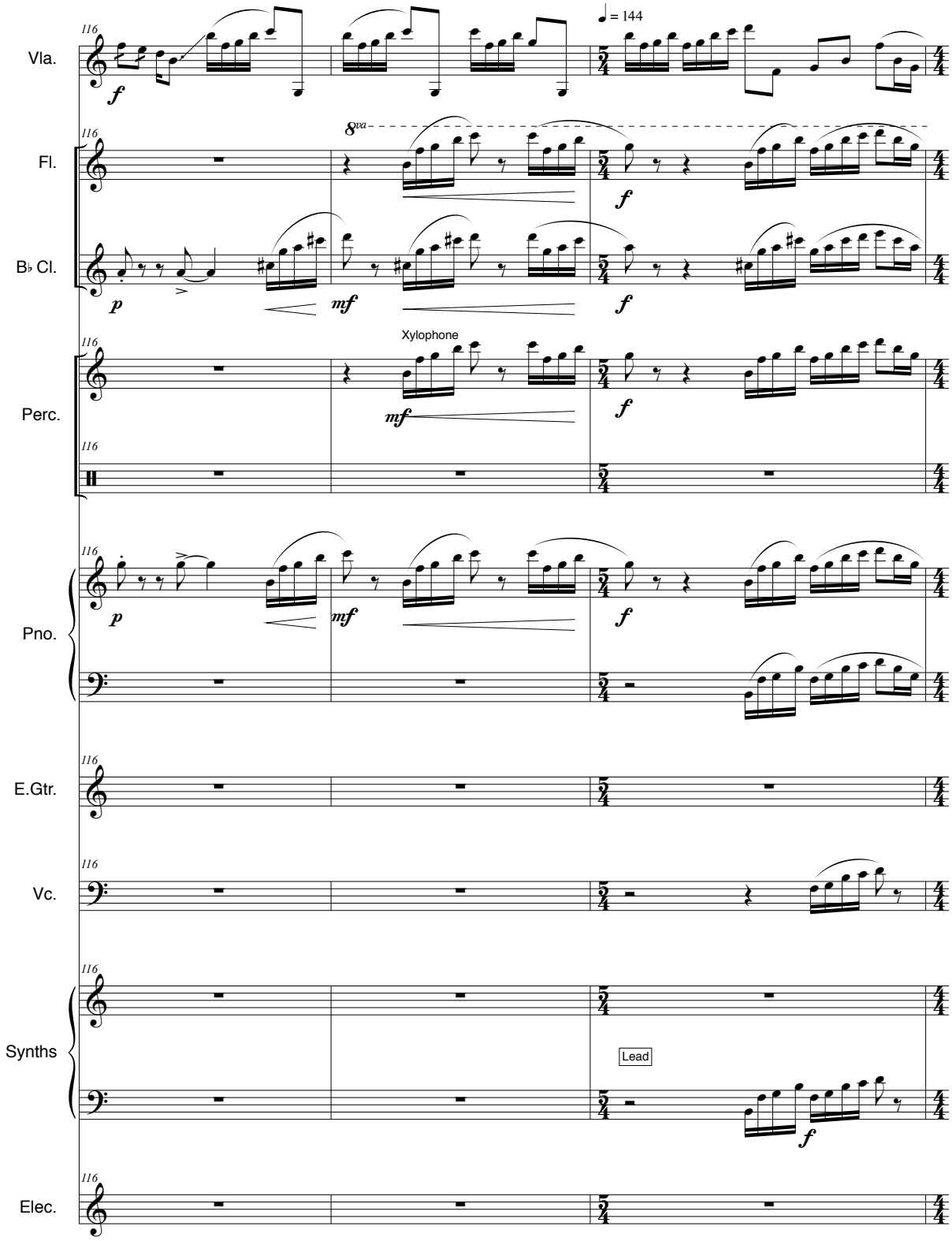

92
Vla.
92
Fl.
B♭ Cl.
92
Perc.
92
p
92
Pno.
p
92
E.Gtr.
mf
92
Vc.
mf
92
Synths
mp
92
Elec.

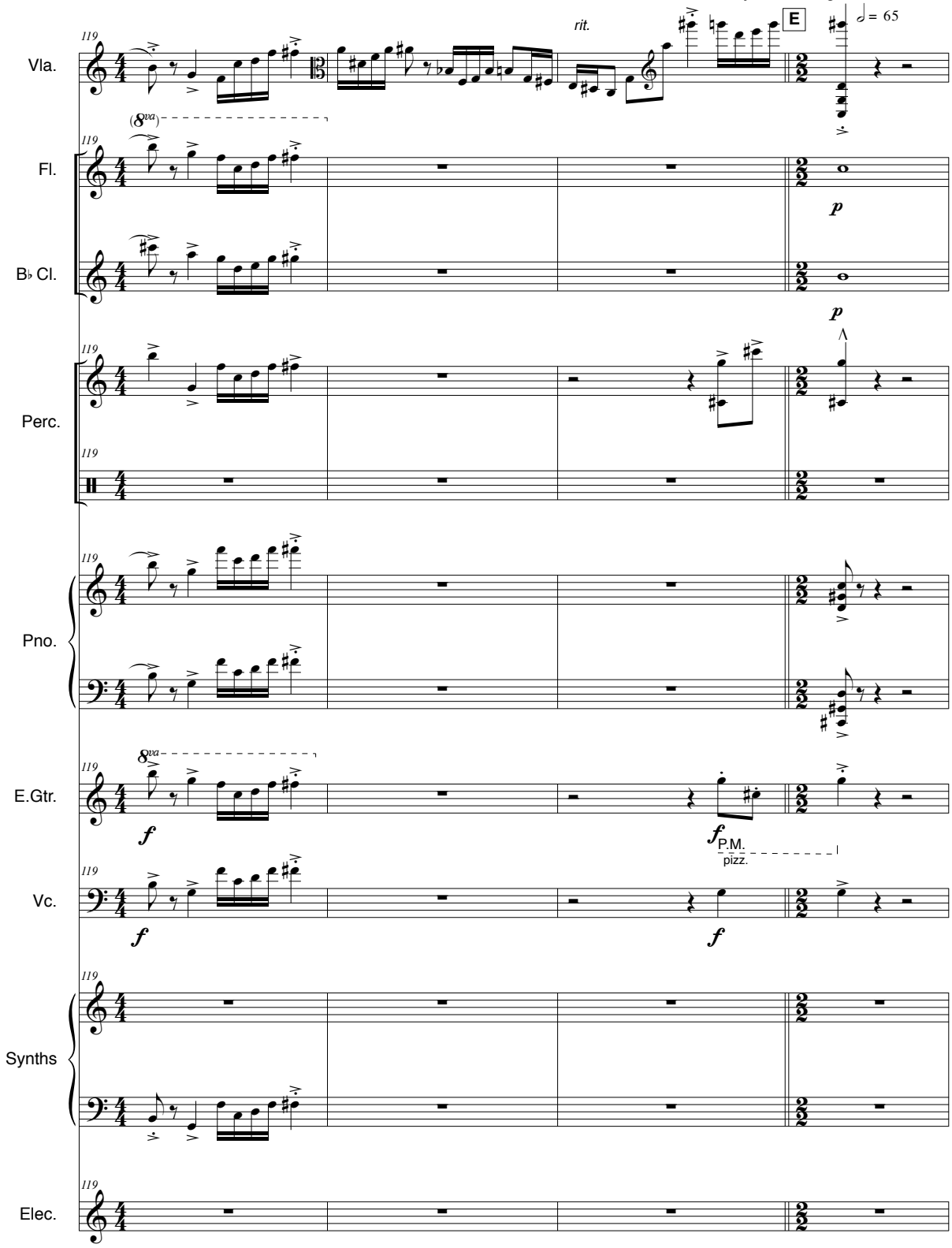

98
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
f

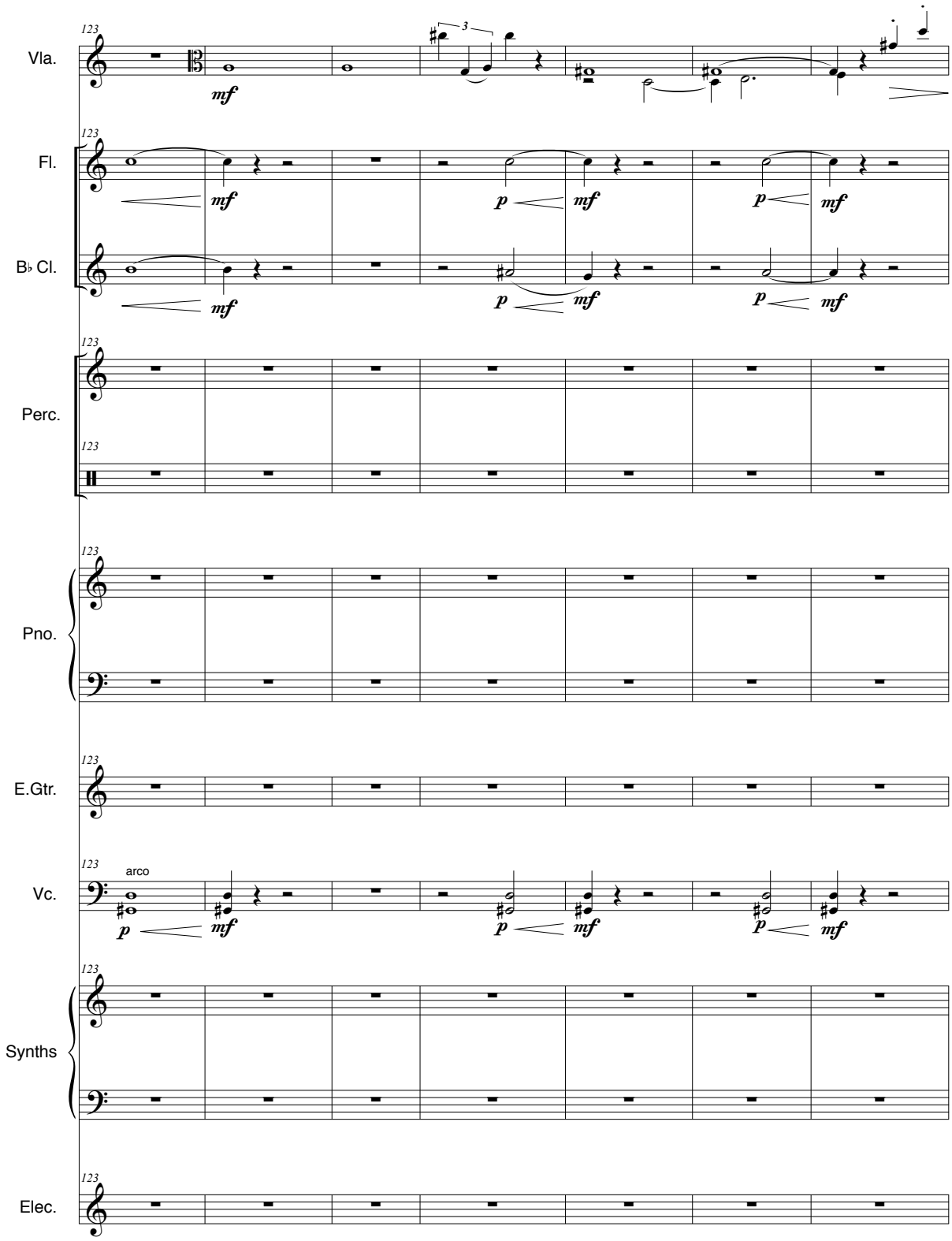

D
Vla.
f
mf
rit.
any comfortable, fast-speaking, soft, multiphonic
flute
p
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
mp
Vc.
Synths
Elec.
Adding slight reverb/delay

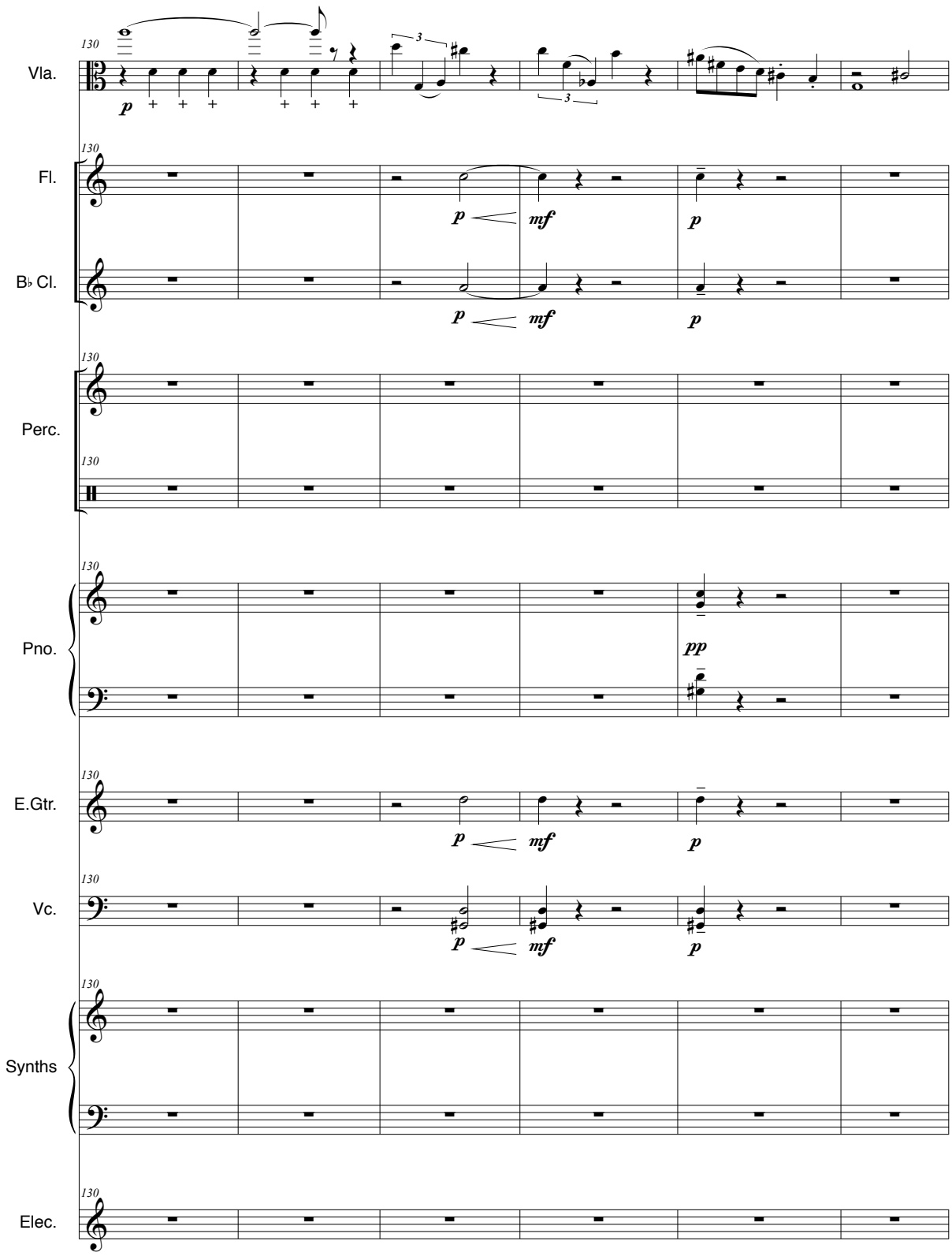

Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
108
arco
mp
accel.
any comfortable,
fast-speaking, soft,
multiphonic
p
mp

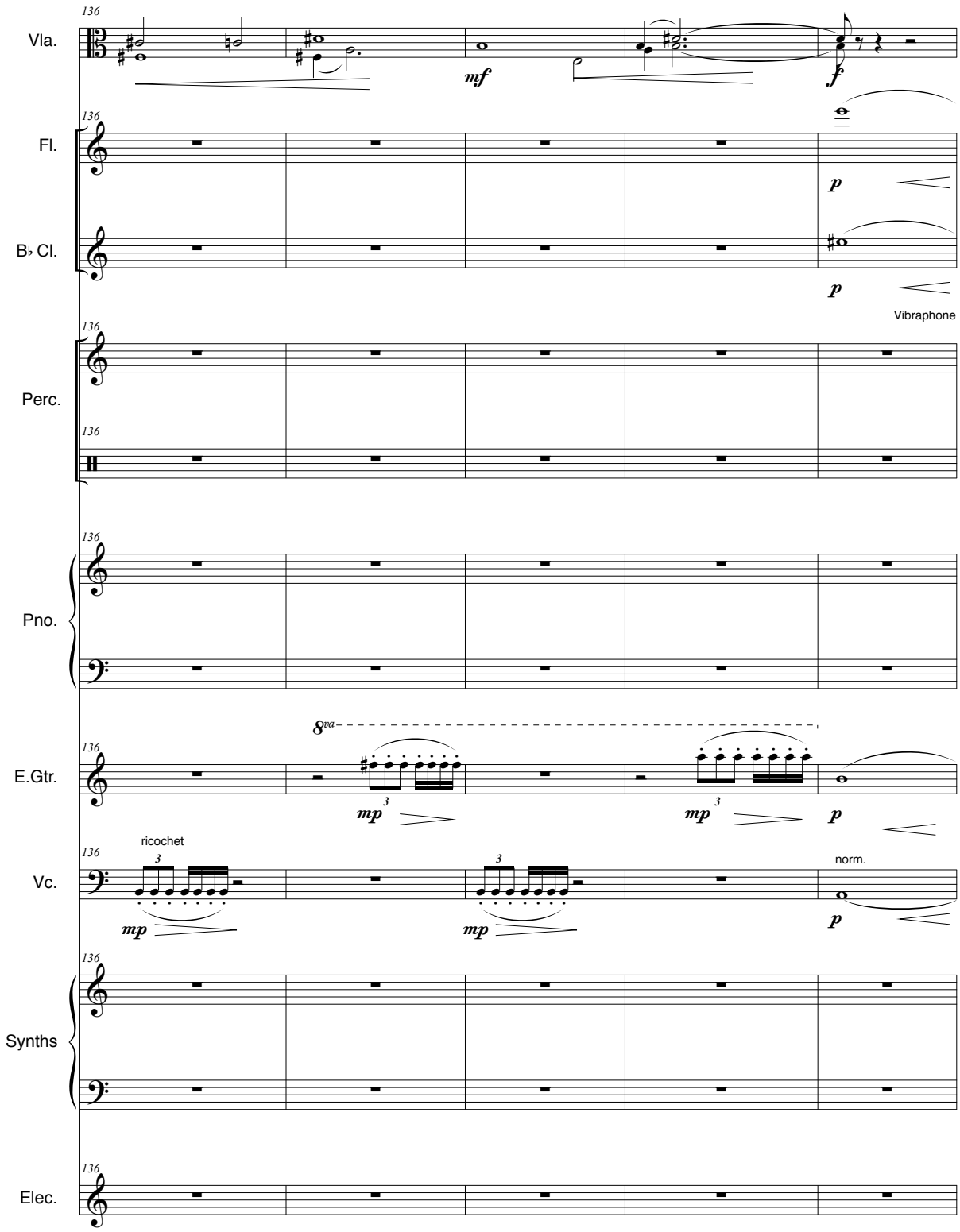

113
Vla.
mf
Fl.
mf
sfz
B♭ Cl.
mf
sfzp
Xylophone
Perc.
Pno.
8va
E.Gtr.
mf
sfzp
pizz.
arco
Vc.
Synths
Elec.

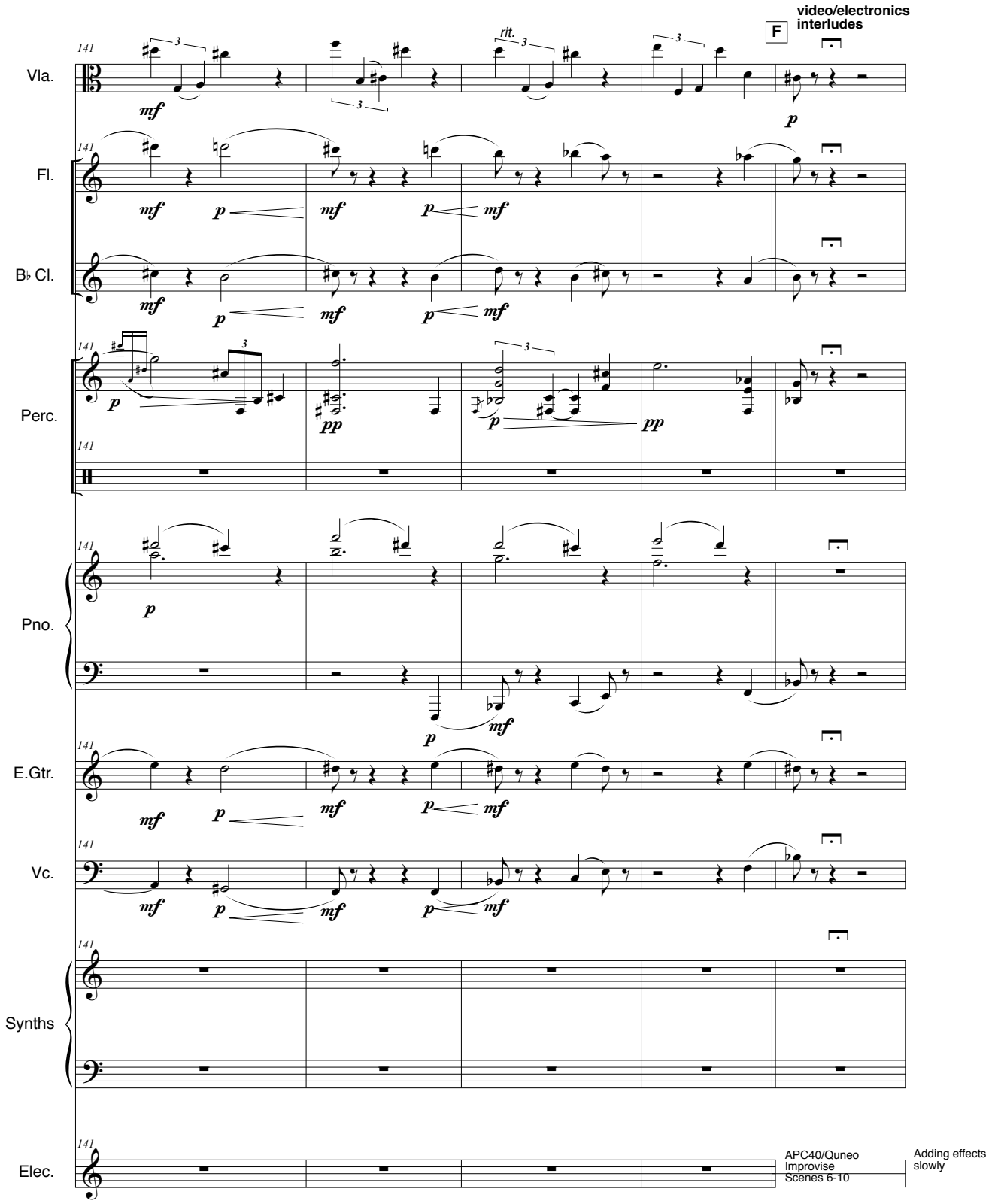

Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
♩ = 144
8va
Xylophone
Lead

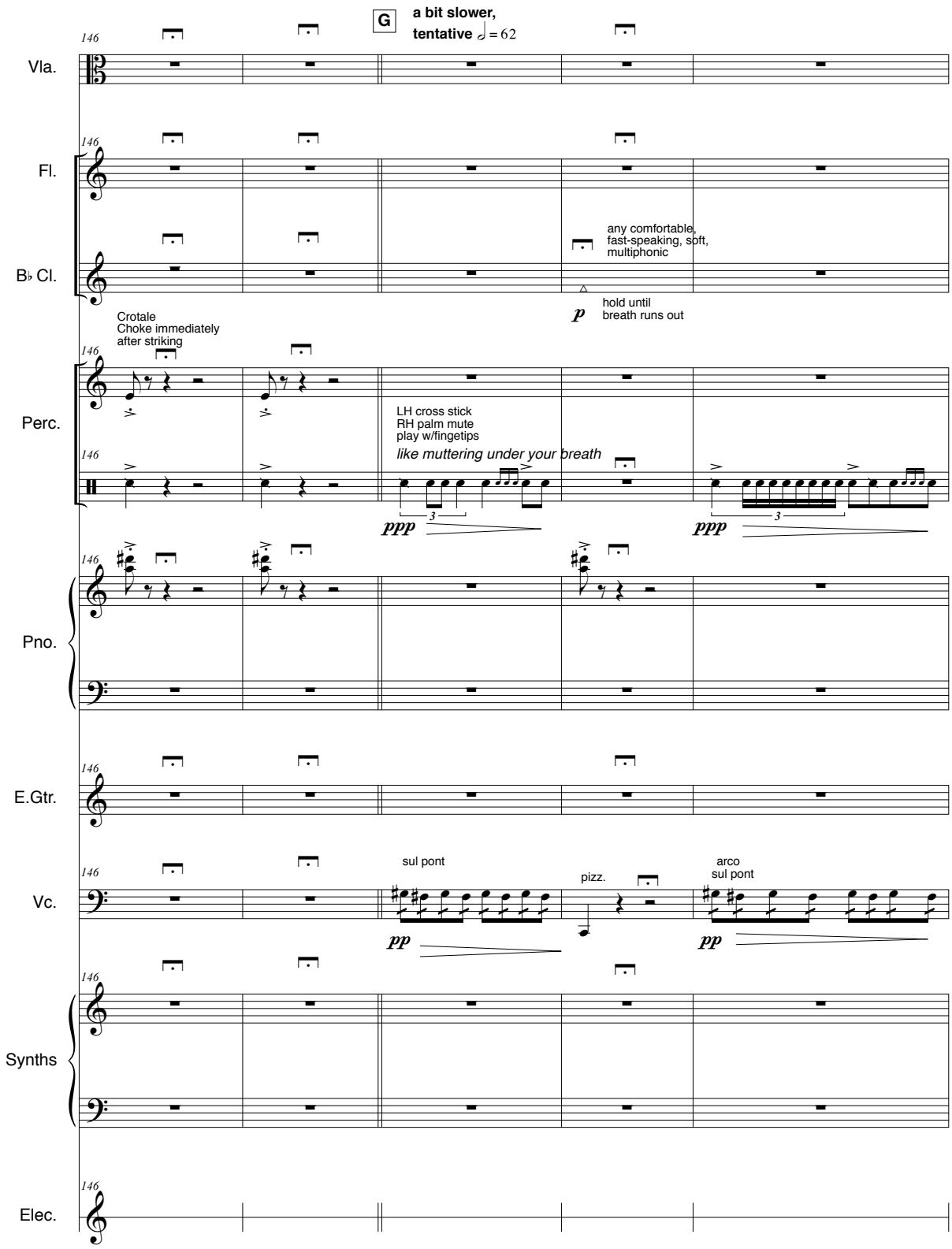

Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
119
rit.
E
♩ = 65
(8va)
8va
p
f
P.M.
pizz.

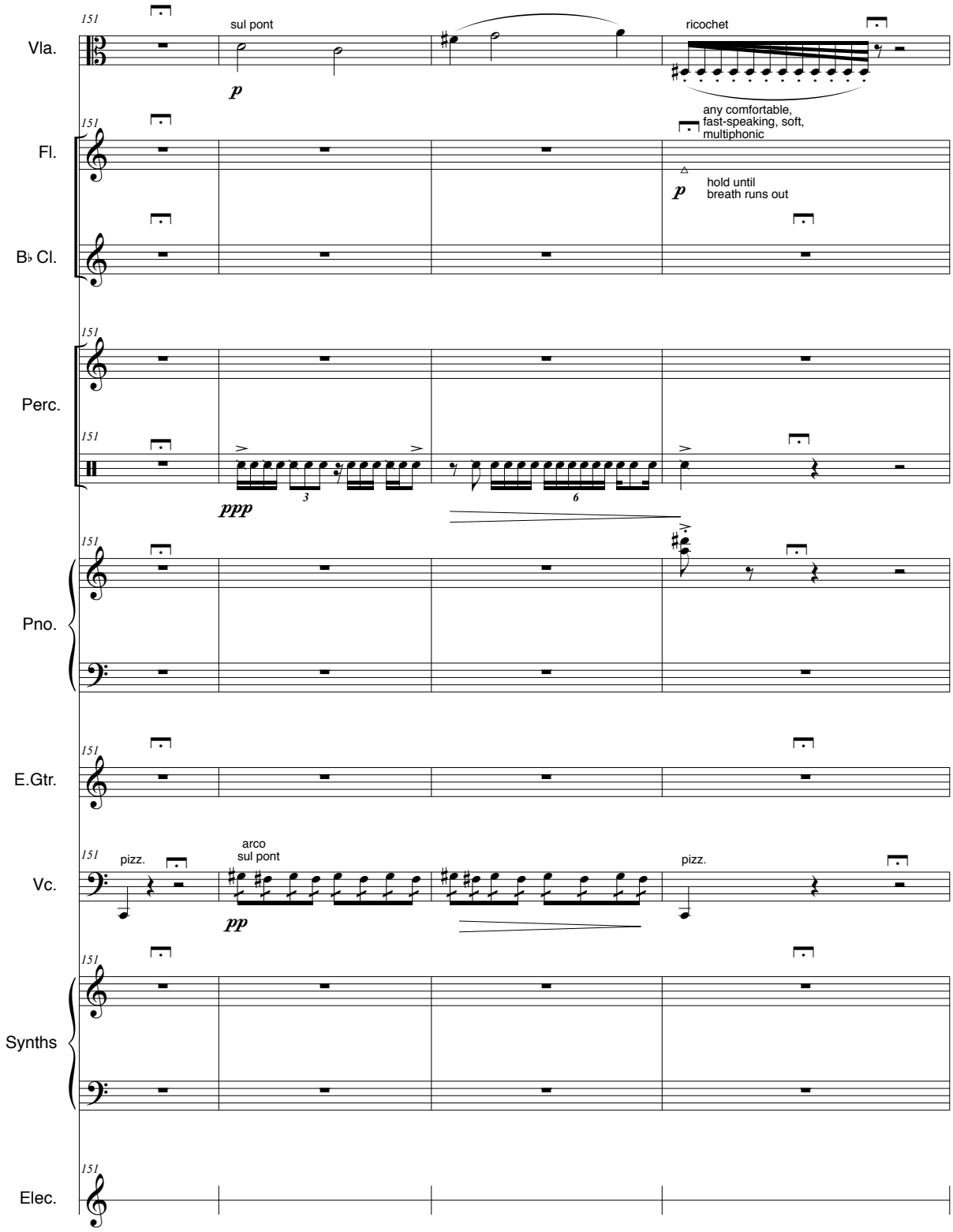

Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
arco

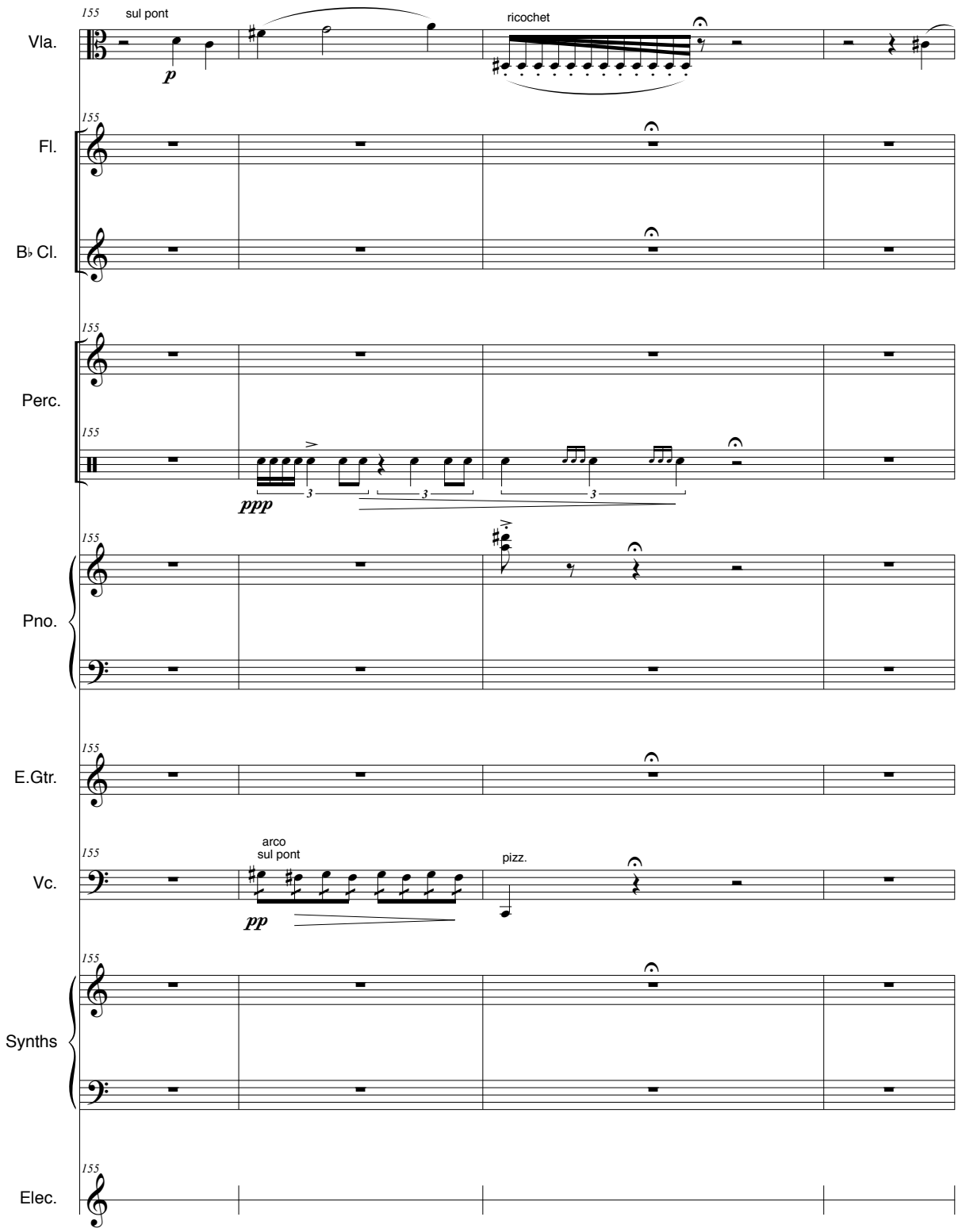

130
Vla.
p
3
3
Fl.
B♭ Cl.
p
mf
p
Perc.
Pno.
pp
E.Gtr.
Vc.
Synths
Elec.

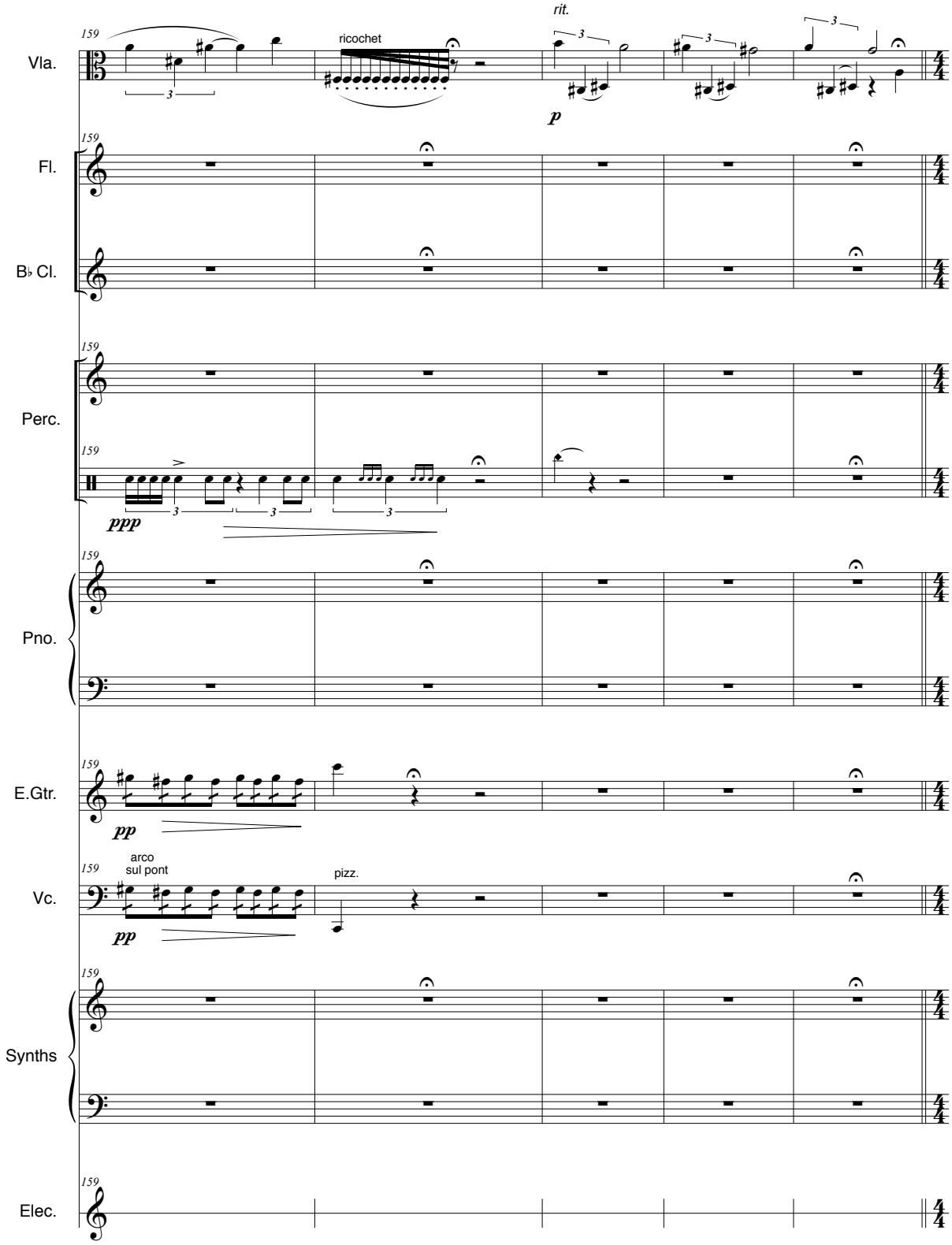

136
Vla.
mf
f
Fl.
p
B♭ Cl.
p
Vibraphone
Perc.
Pno.
8va
E.Gtr.
mp
mp
p
ricochet
Vc.
mp
mp
norm.
p
Synths
Elec.

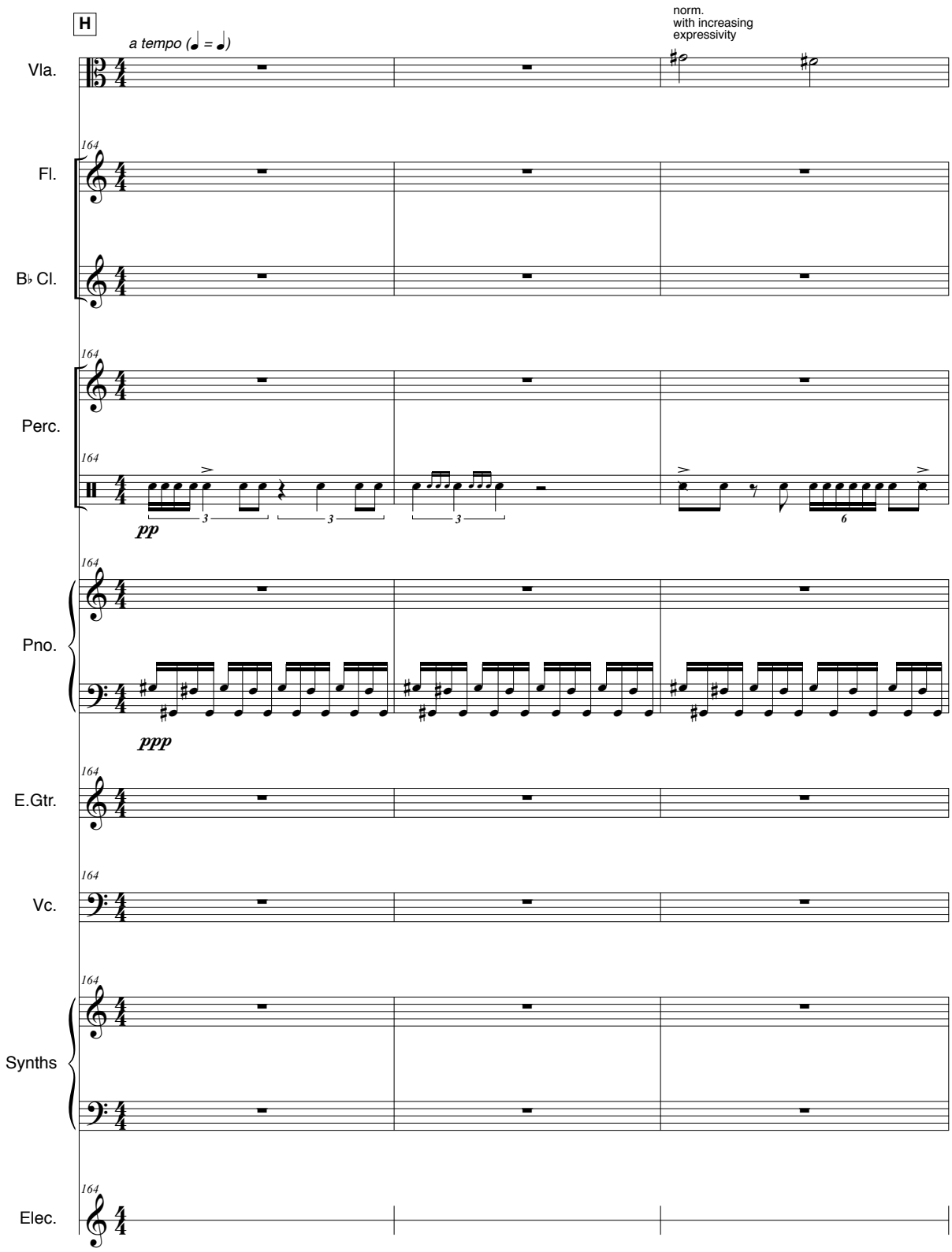

video/electronics interludes
F
rit.
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
APC40/Quneo
Improvise
Scenes 6-10
Adding effects slowly

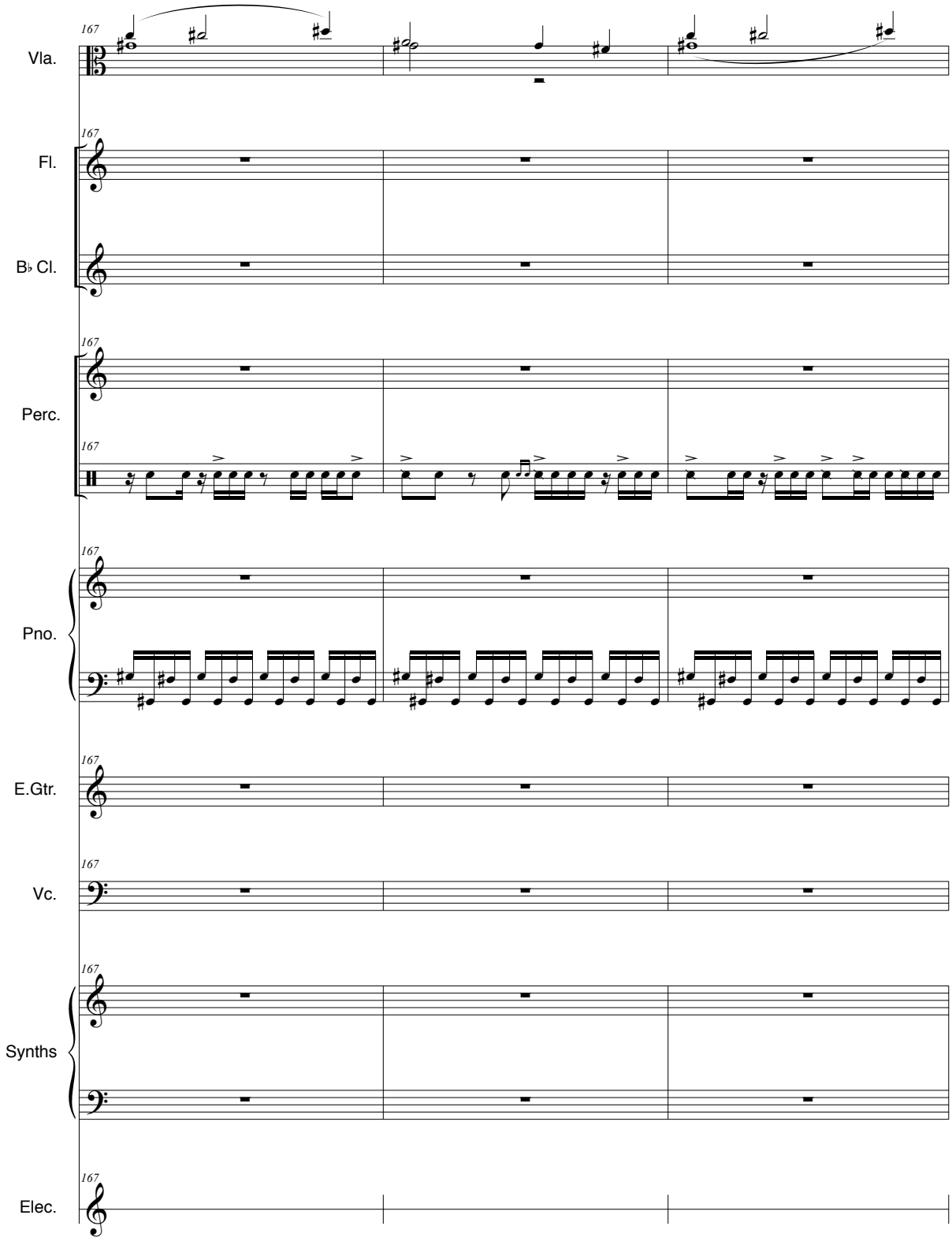

G
a bit slower,
tentative ♩ = 62
146
Vla.
Fl.
B♭ Cl.
any comfortable, fast-speaking, soft, multiphonic
p
hold until breath runs out
Crotale
Choke immediately after striking
Perc.
LH cross stick
RH palm mute
play w/fingetips
like muttering under your breath
ppp
3
Pno.
E.Gtr.
Vc.
sul pont
pizz.
arco
sul pont
pp
Synths
Elec.

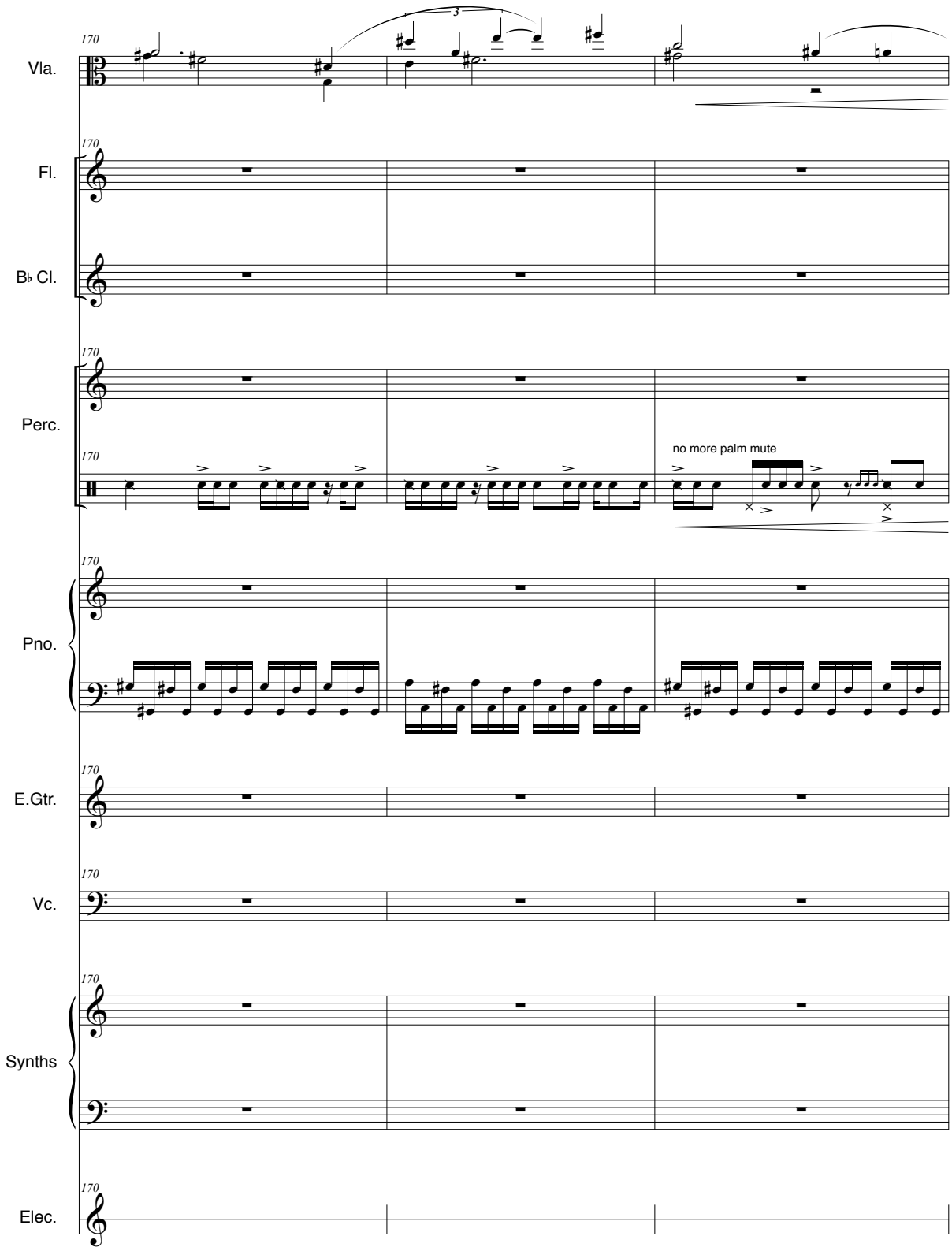

151
Vla.
sul pont
p
ricochet
Fl.
any comfortable, fast-speaking, soft, multiphonic
p
hold until breath runs out
B♭ Cl.
Perc.
ppp
Pno.
E.Gtr.
Vc.
pizz.
arco
sul pont
pp
pizz.
Synths
Elec.

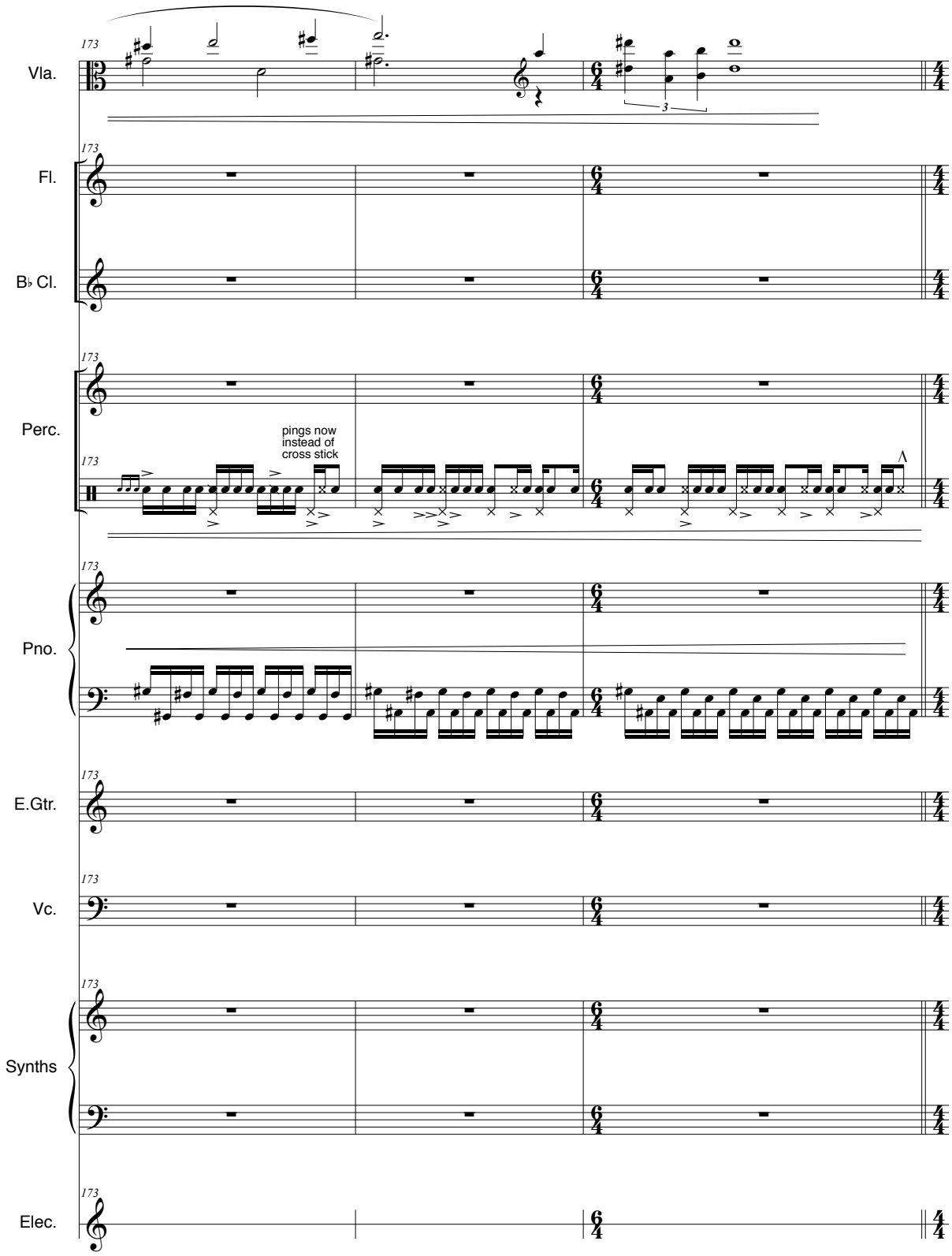

155
sul pont
ricochet
Vla.
p
Fl.
B♭ Cl.
Perc.
ppp
Pno.
E.Gtr.
arco
sul pont
pizz.
Vc.
pp
Synths
Elec.

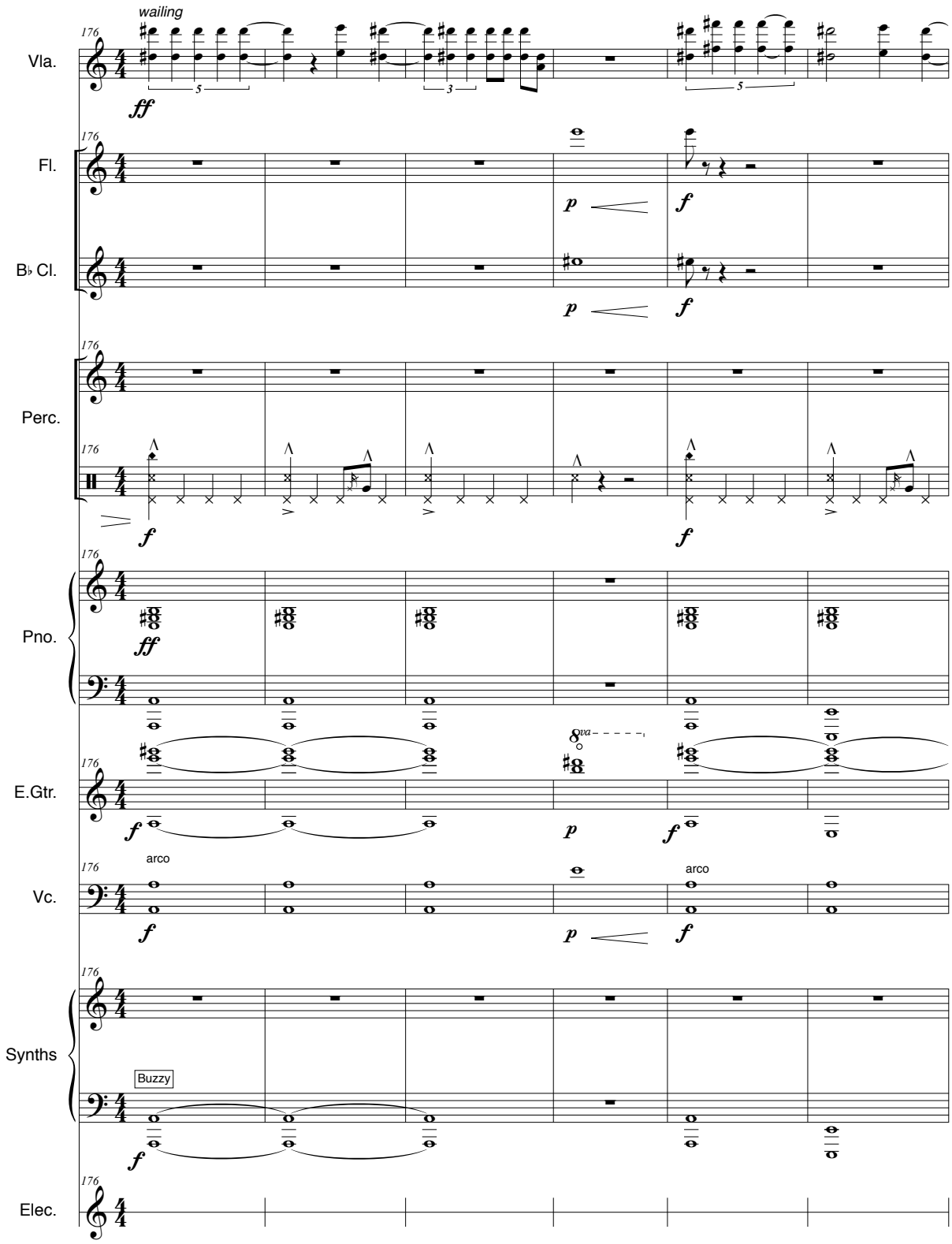

159
Vla.
ricochet
rit.
p
Fl.
B♭ Cl.
Perc.
ppp
Pno.
E.Gtr.
pp
Vc.
arco
sul pont
pizz.
pp
Synths
Elec.

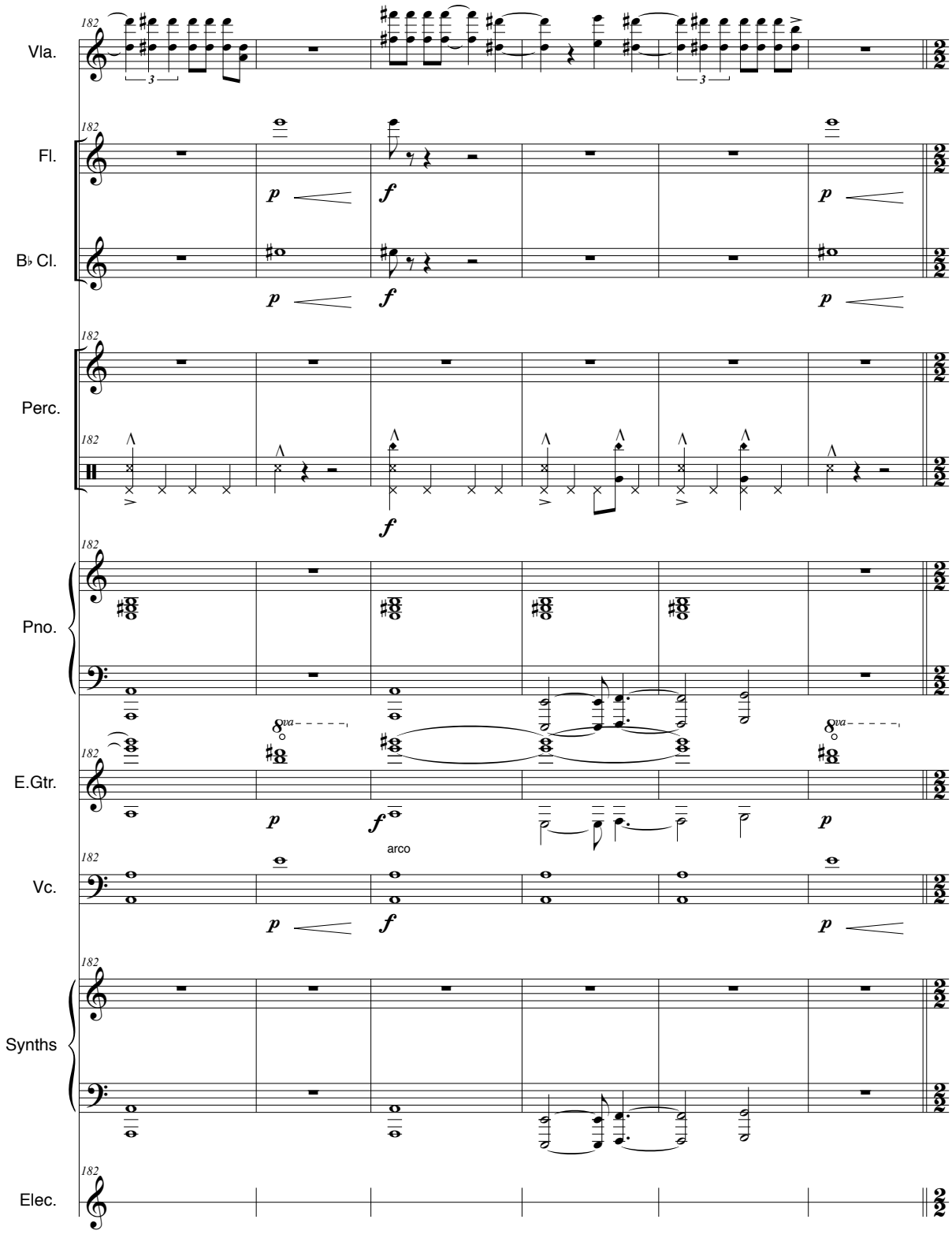

H
a tempo (♩ = ♩)
norm.
with increasing
expressivity
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
164
pp
ppp

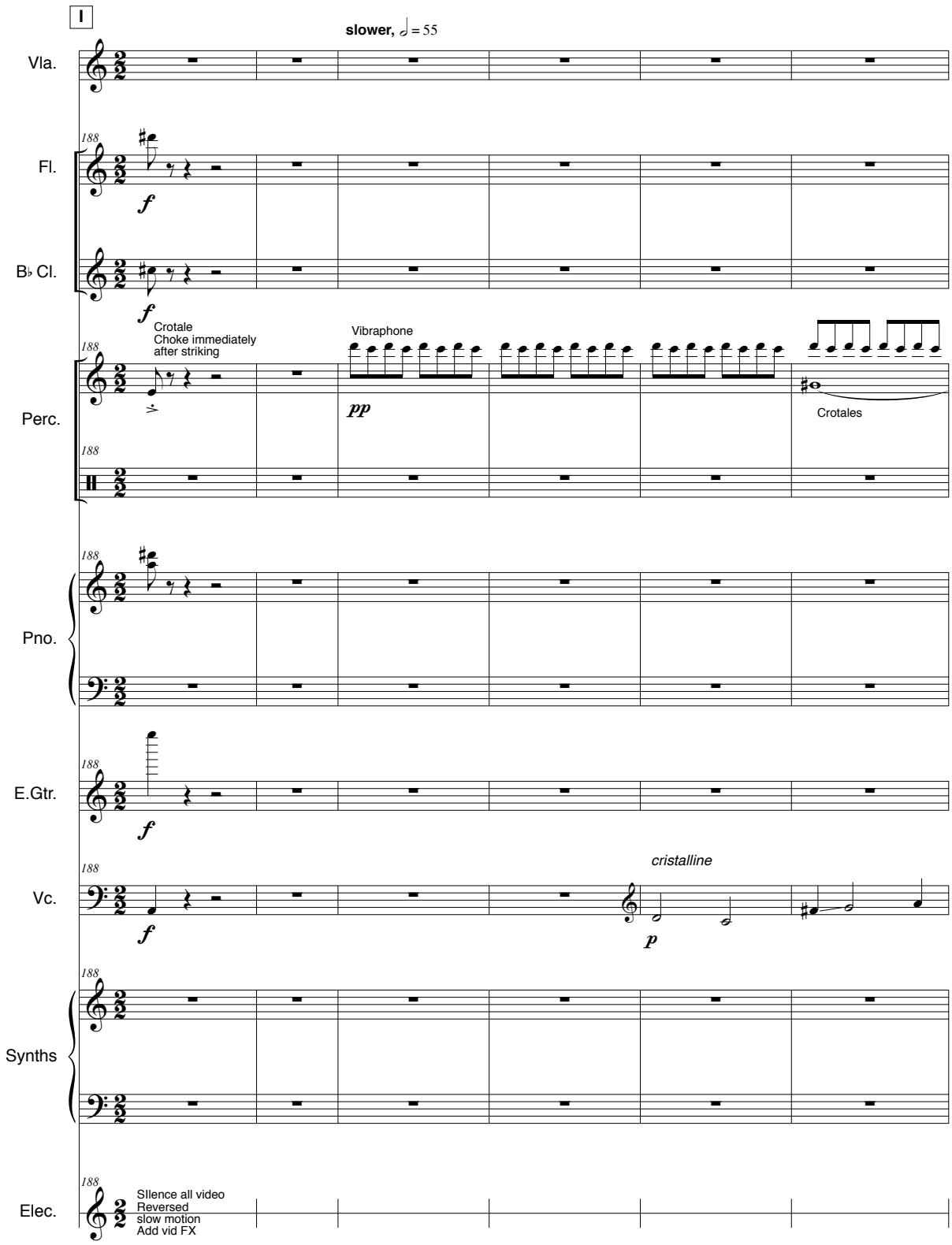

167
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.

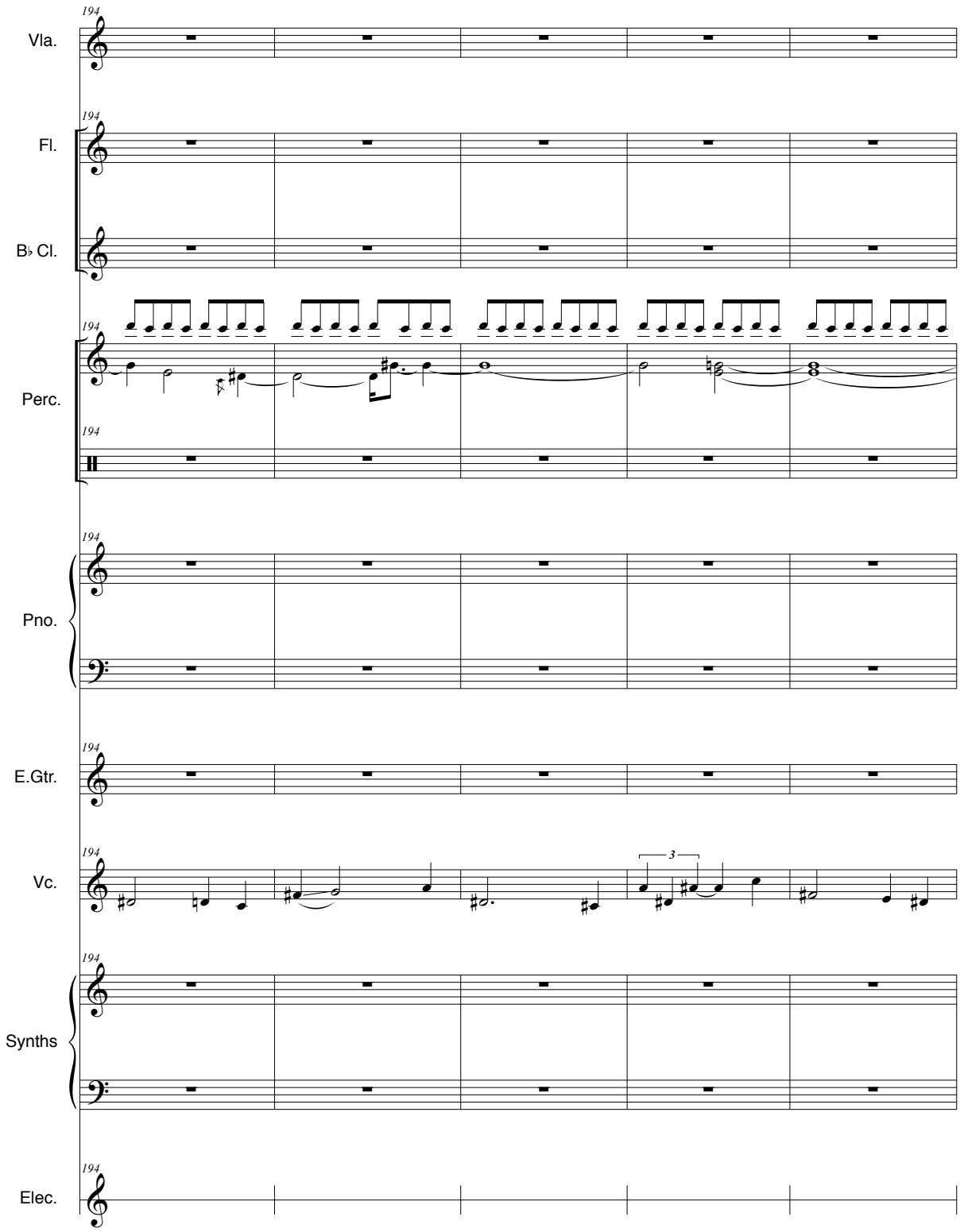

170
Vla.
3
Fl.
B♭ Cl.
Perc.
no more palm mute
Pno.
E.Gtr.
Vc.
Synths
Elec.

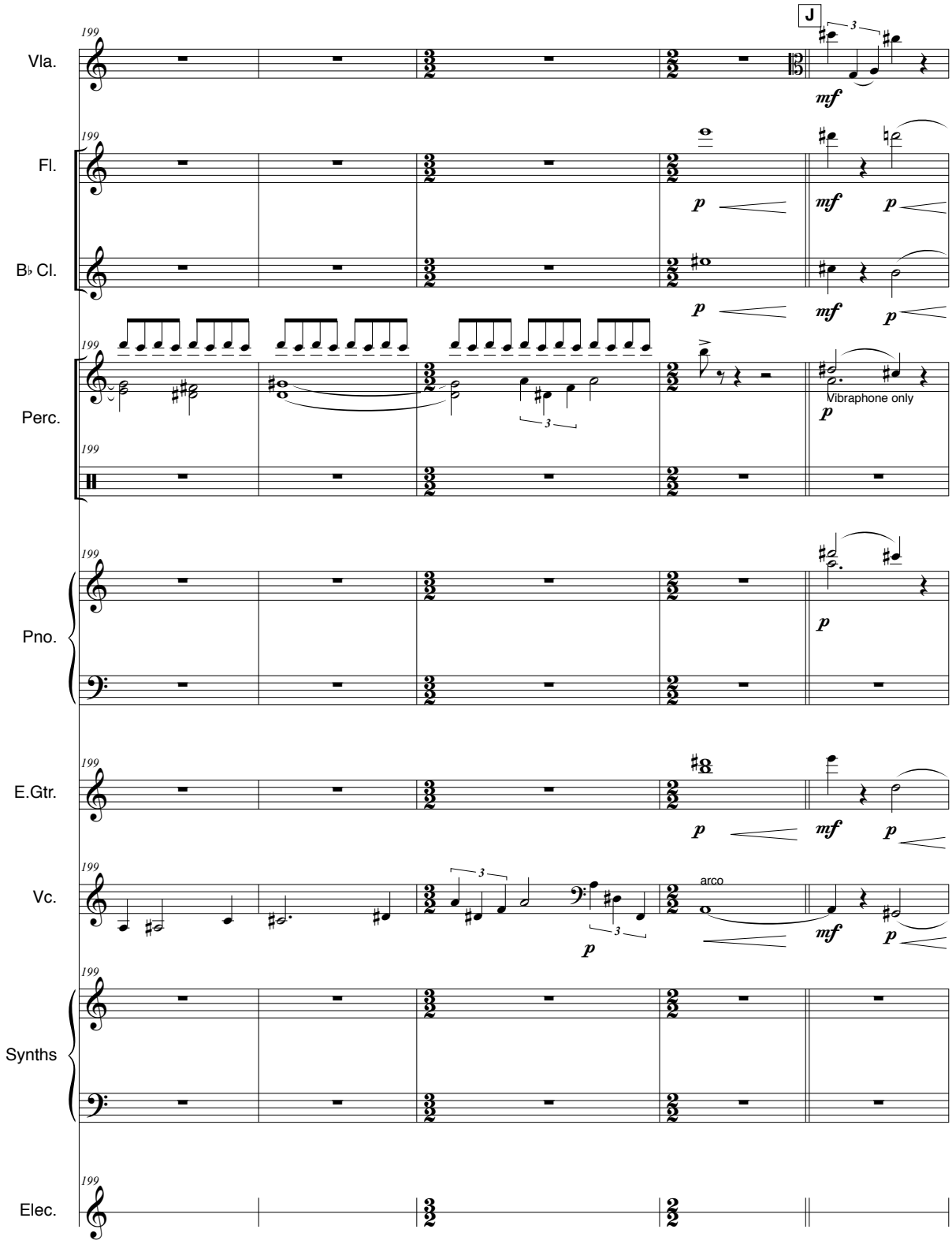

173
Vla.
Fl.
B♭ Cl.
Perc.
pings now
instead of
cross stick
Pno.
E.Gtr.
Vc.
Synths
Elec.

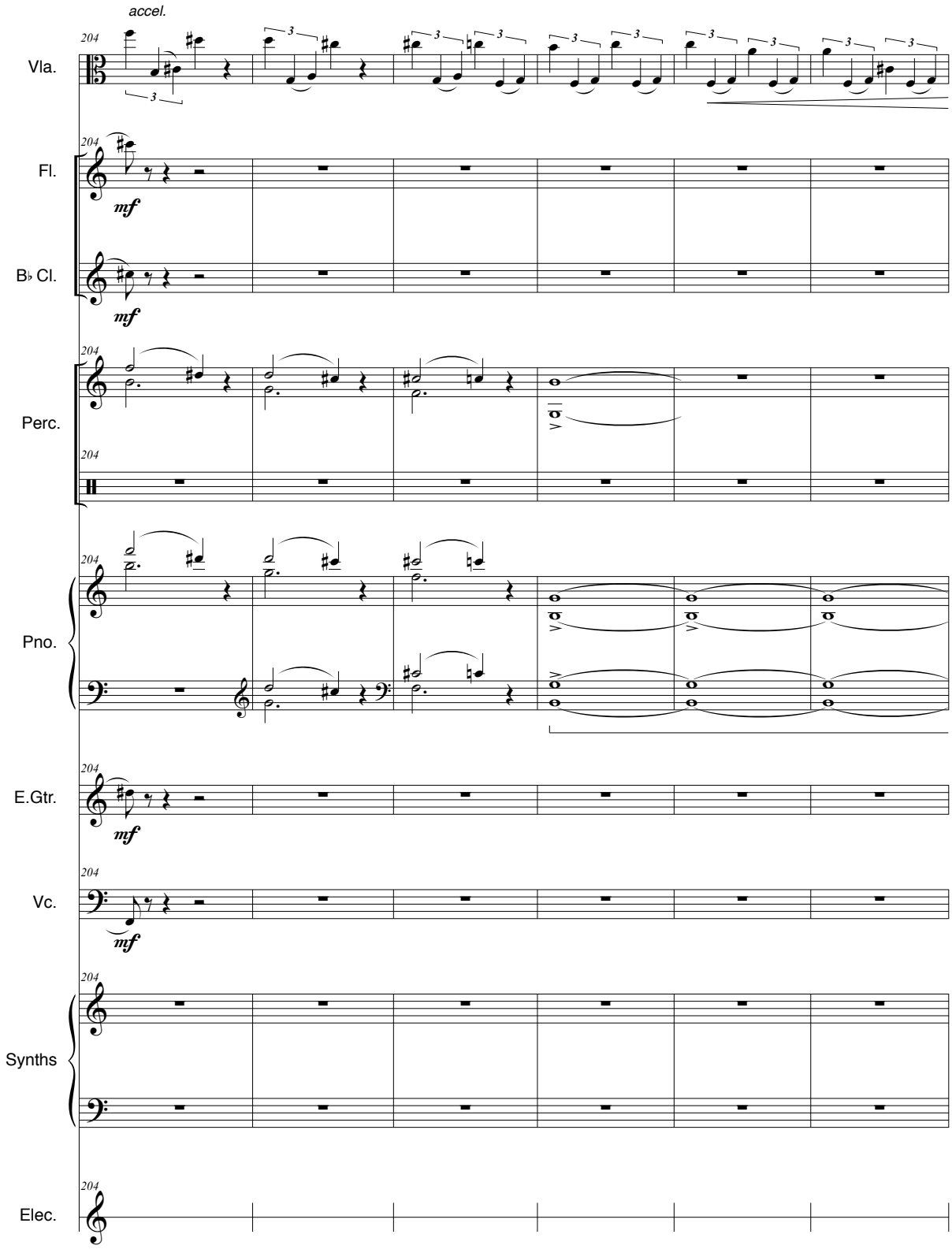

wailing
176
Vla.
ff
Fl.
p
f
B♭ Cl.
Perc.
Pno.
8va
E.Gtr.
arco
Vc.
Synths
Buzzy
Elec.

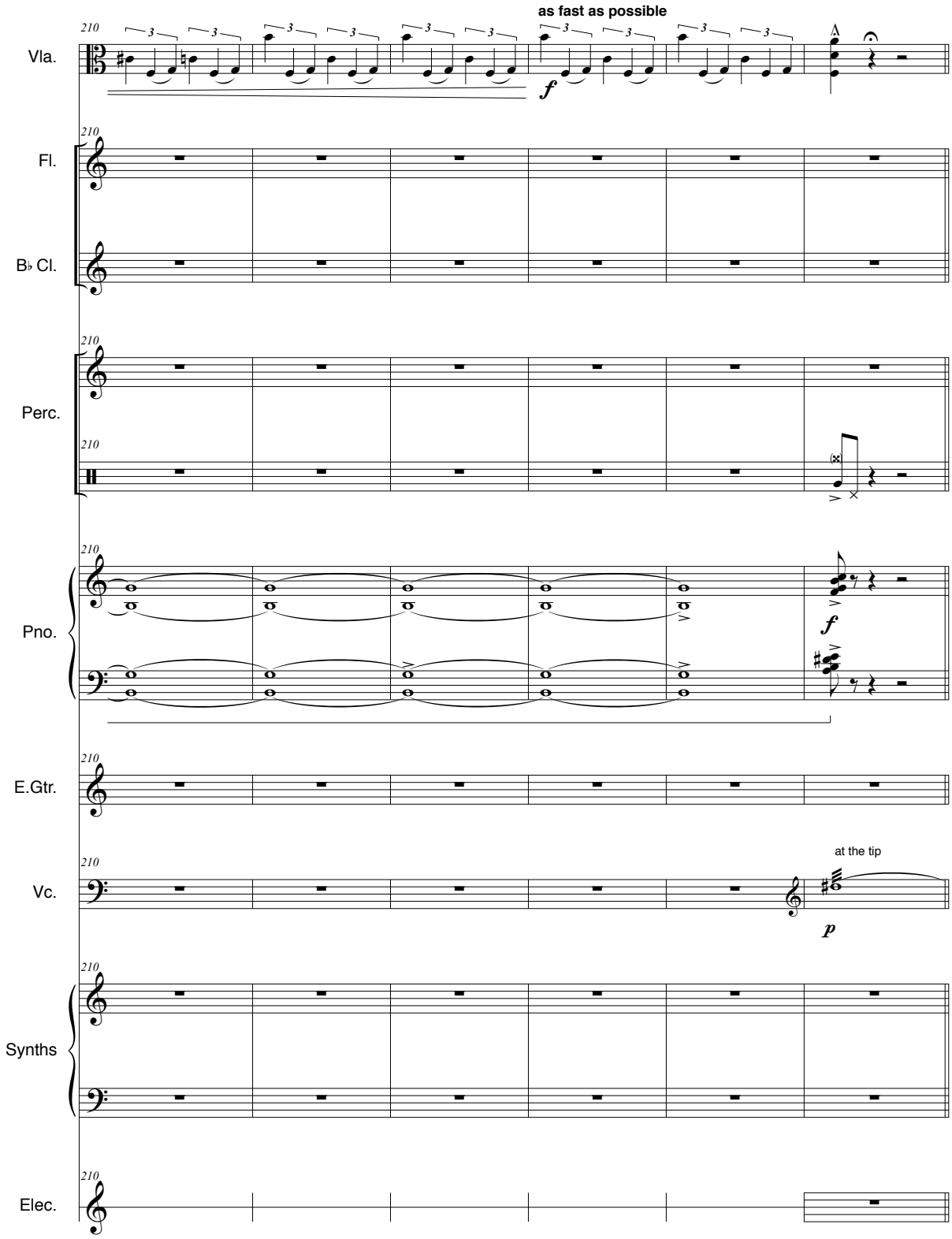

182
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
p
f
arco
8va

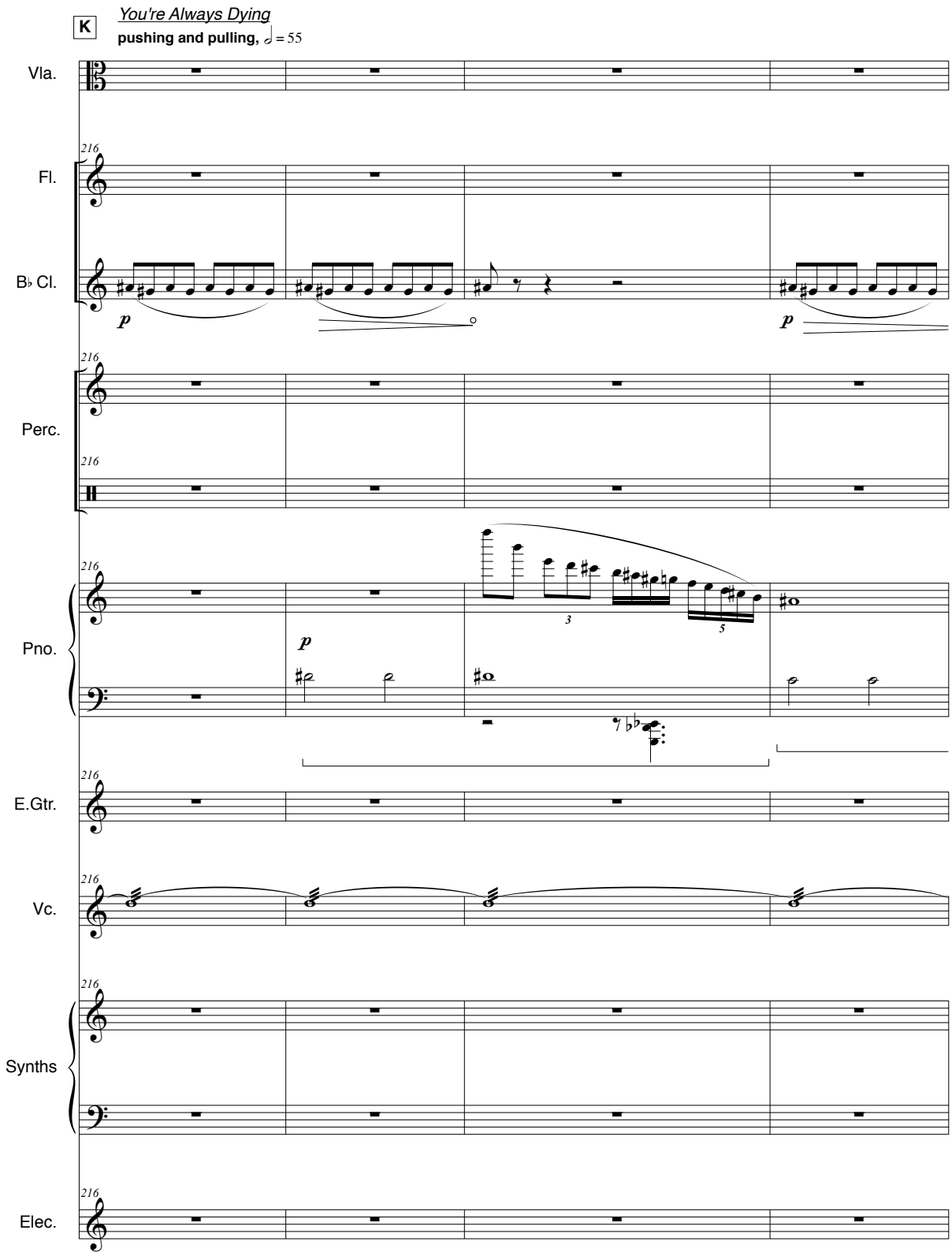

I
slower, ♩ = 55
Vla.
188
Fl.
f
B♭ Cl.
f
Crotale
Choke immediately
after striking
Vibraphone
Perc.
pp
Crotales
188
Pno.
188
E.Gtr.
f
188
Vc.
f
cristalline
p
188
Synths
188
Elec.
SIlence all video
Reversed
slow motion
Add vid FX

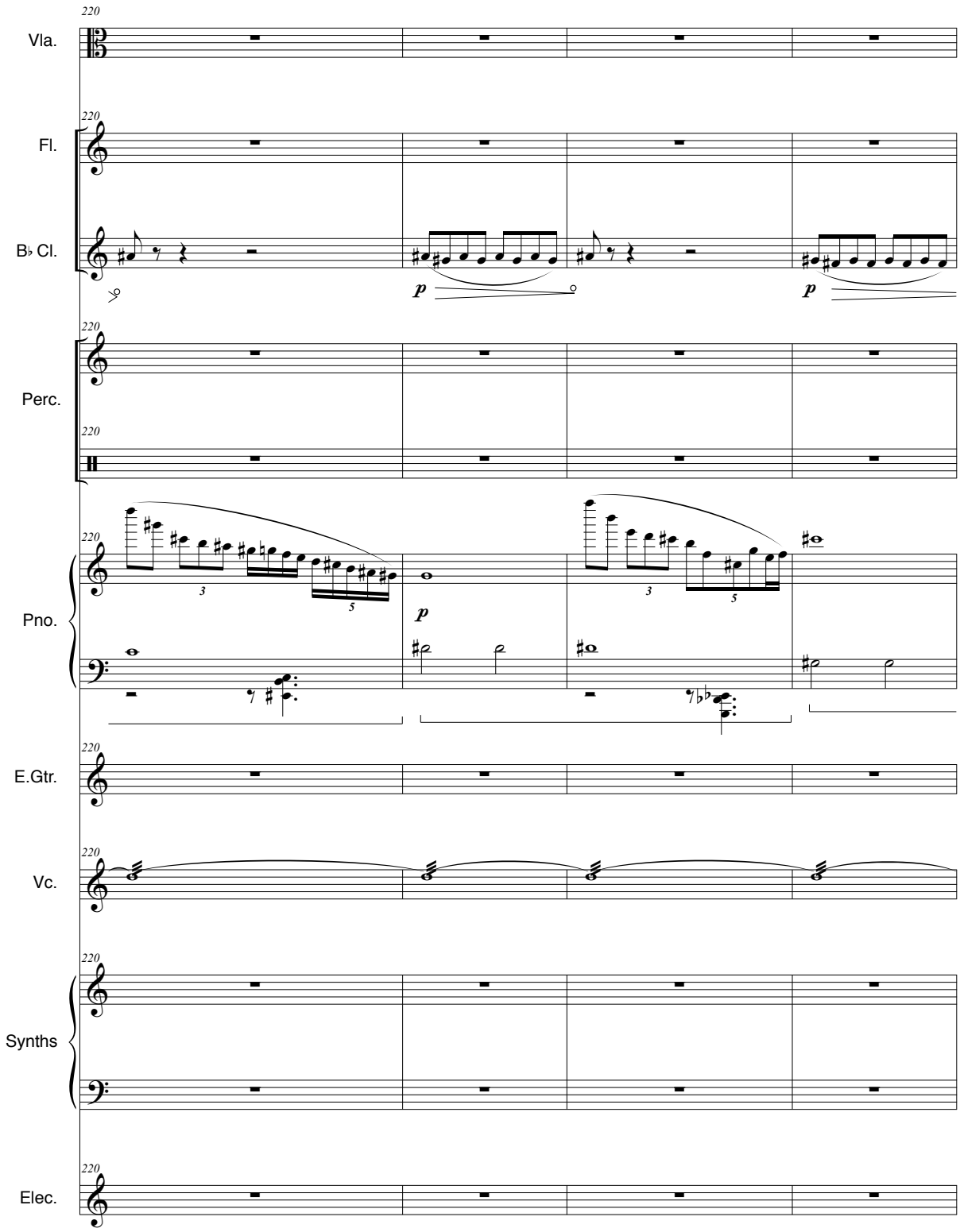

194
Vla.
194
Fl.
B♭ Cl.
194
Perc.
194
194
Pno.
194
E.Gtr.
194
Vc.
3
194
Synths
194
Elec.

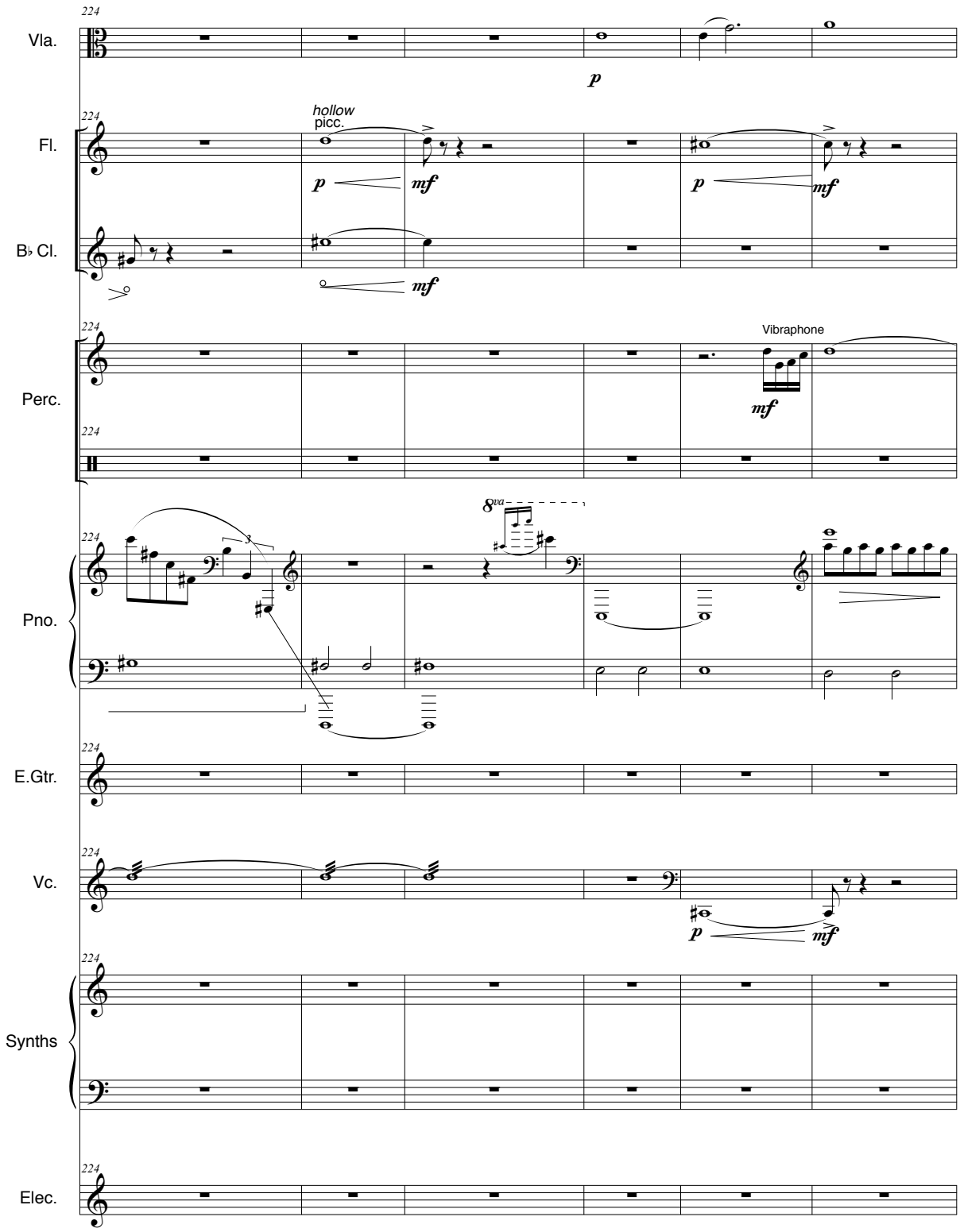

J
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
199
mf
p
Vibraphone only
arco

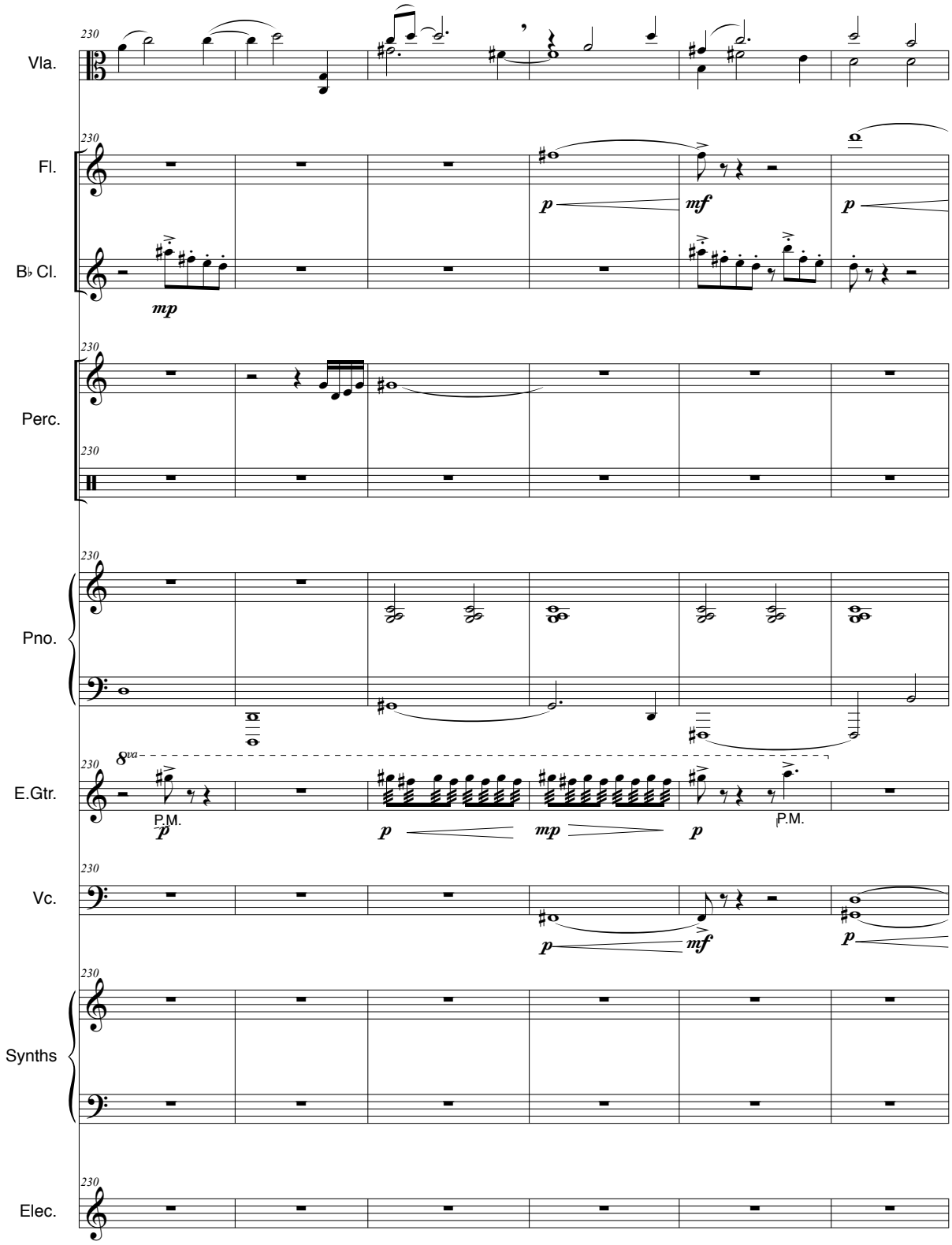

accel.
204
Vla.
Fl.
mf
B♭ Cl.
mf
Perc.
Pno.
E.Gtr.
mf
Vc.
mf
Synths
Elec.

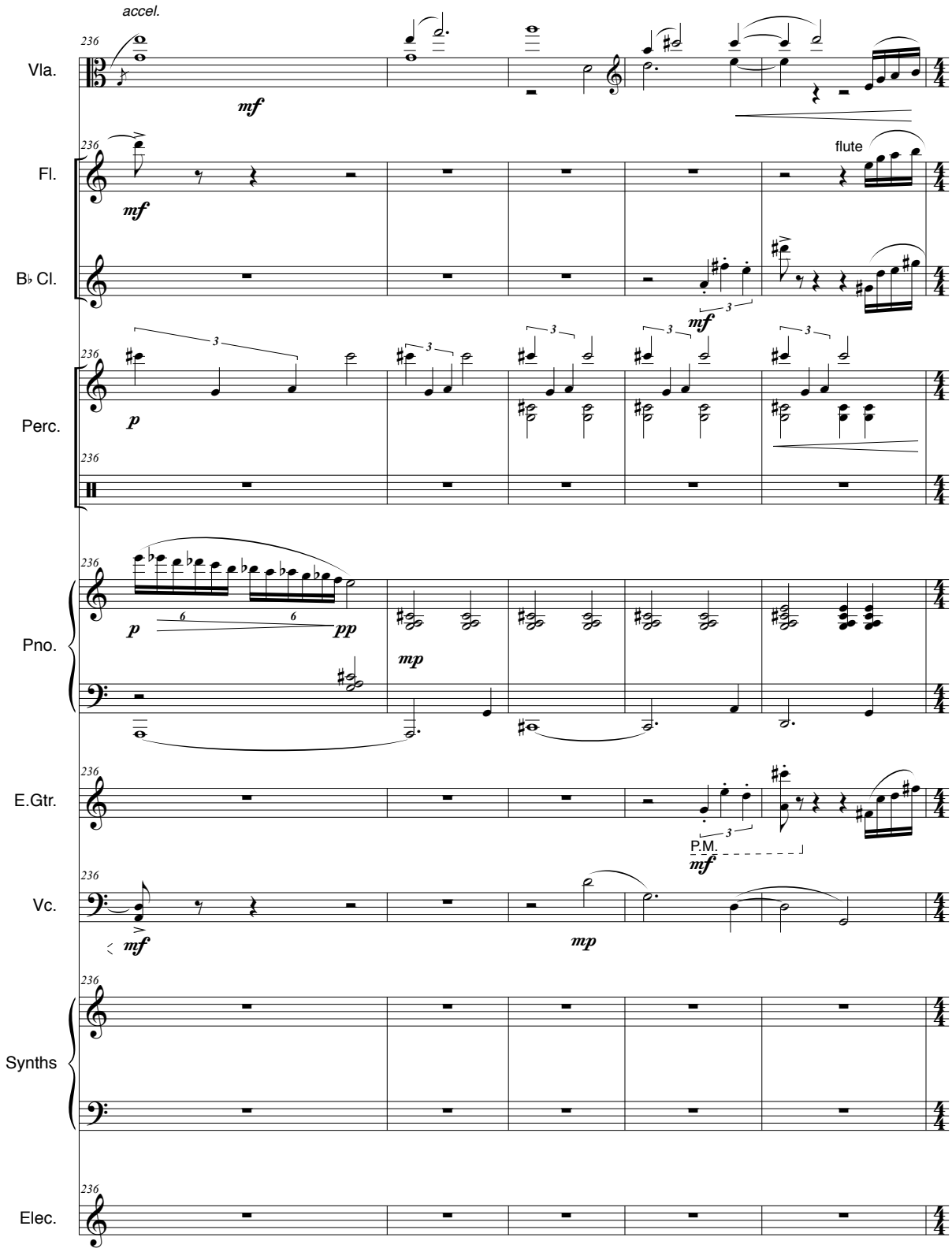

as fast as possible
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
at the tip
Synths
Elec.

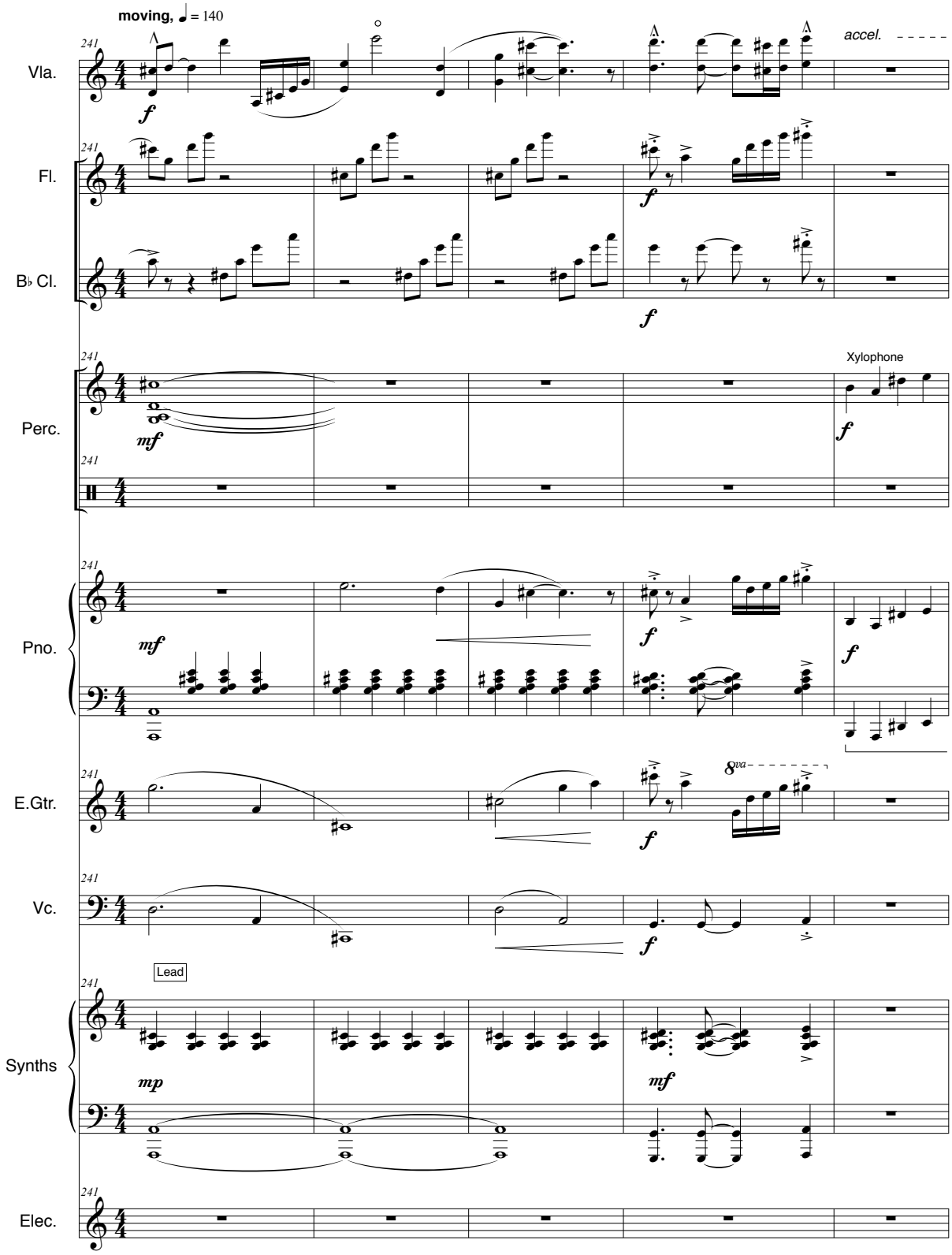

K
You're Always Dying
pushing and pulling, ♩ = 55
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
216
p
3
5

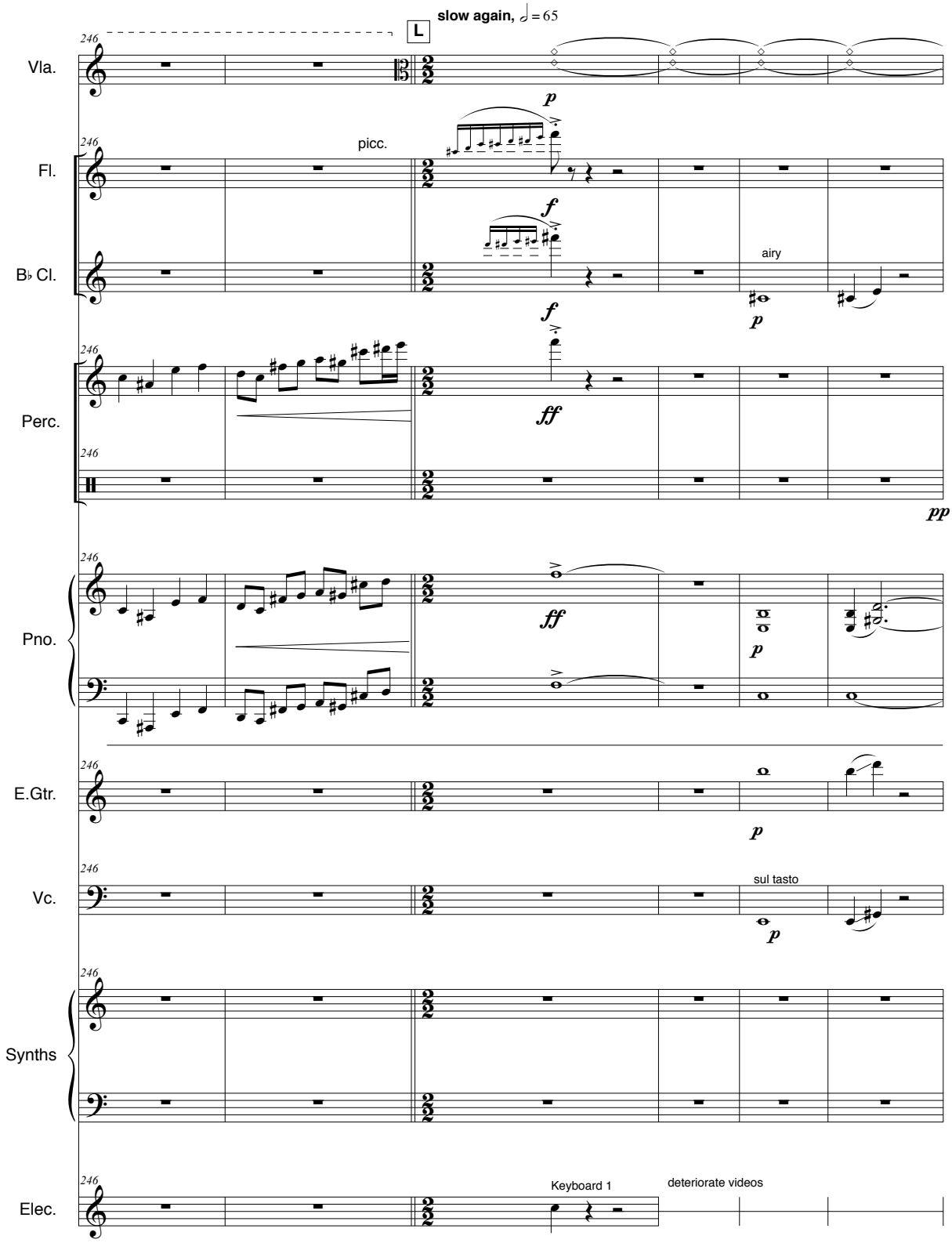

220
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
p
p
p

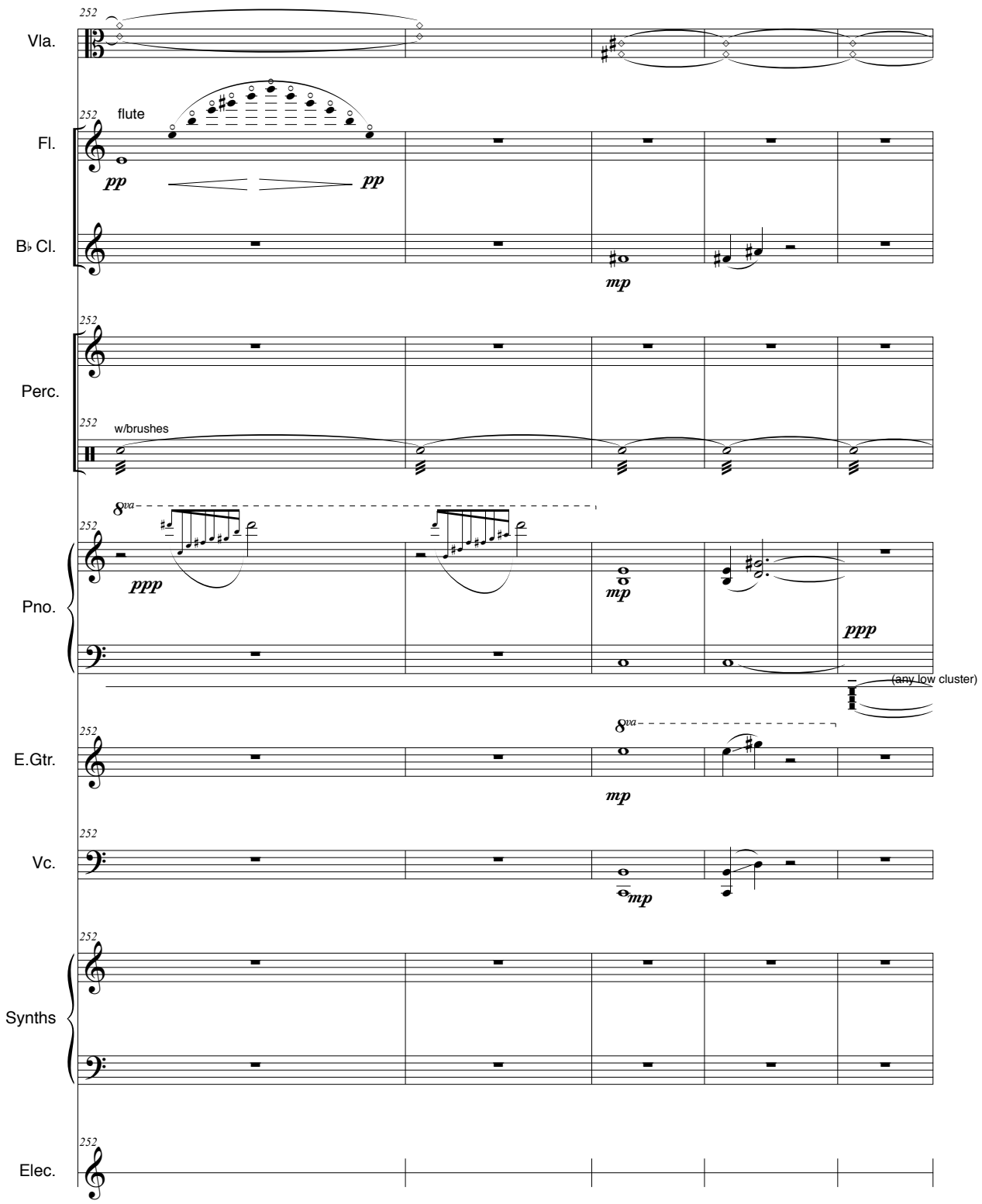

224
Vla.
p
hollow
picc.
Fl.
p
mf
p
mf
B♭ Cl.
mf
Perc.
Vibraphone
mf
Pno.
8va
E.Gtr.
Vc.
p
mf
Synths
Elec.

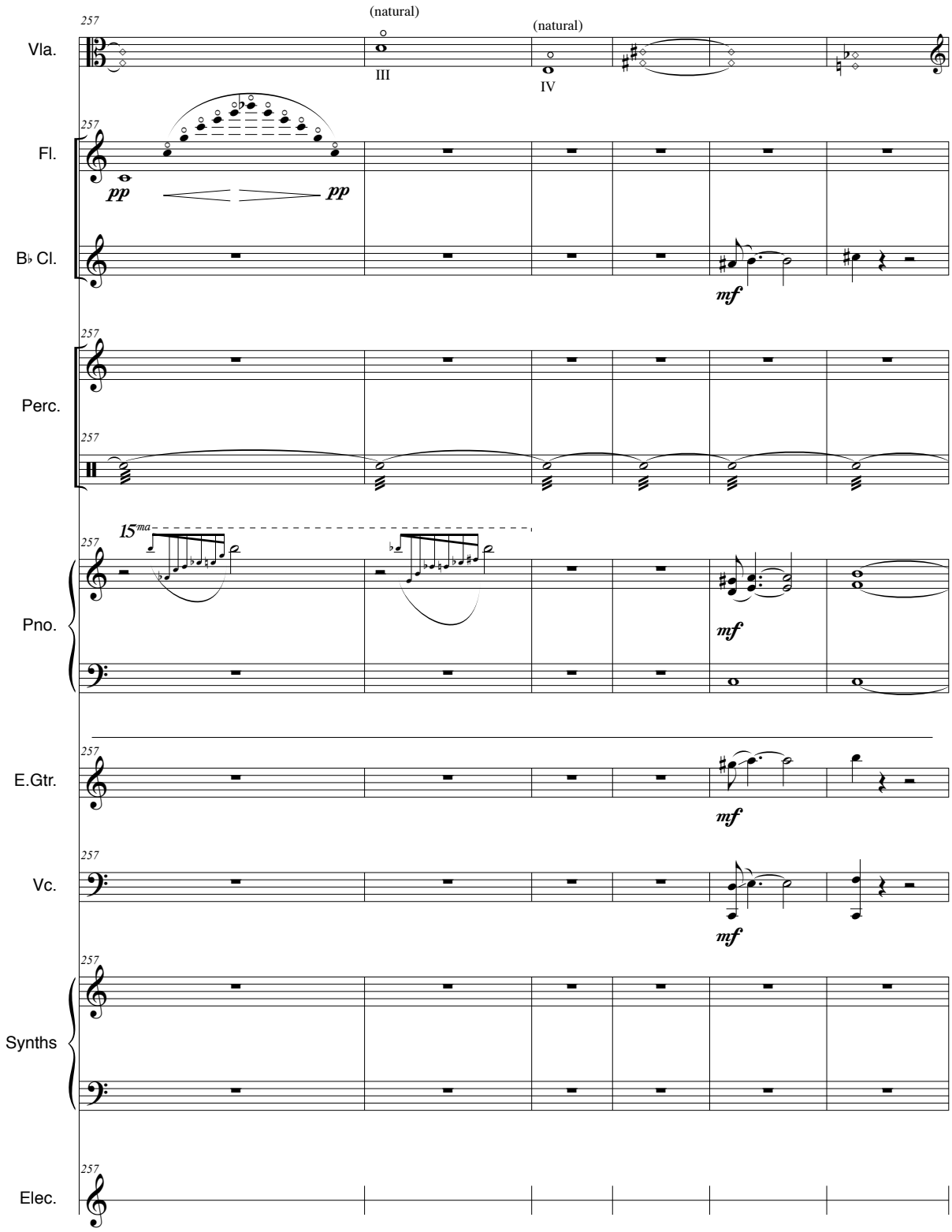

230
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
p
mf
mp
8va
P.M.

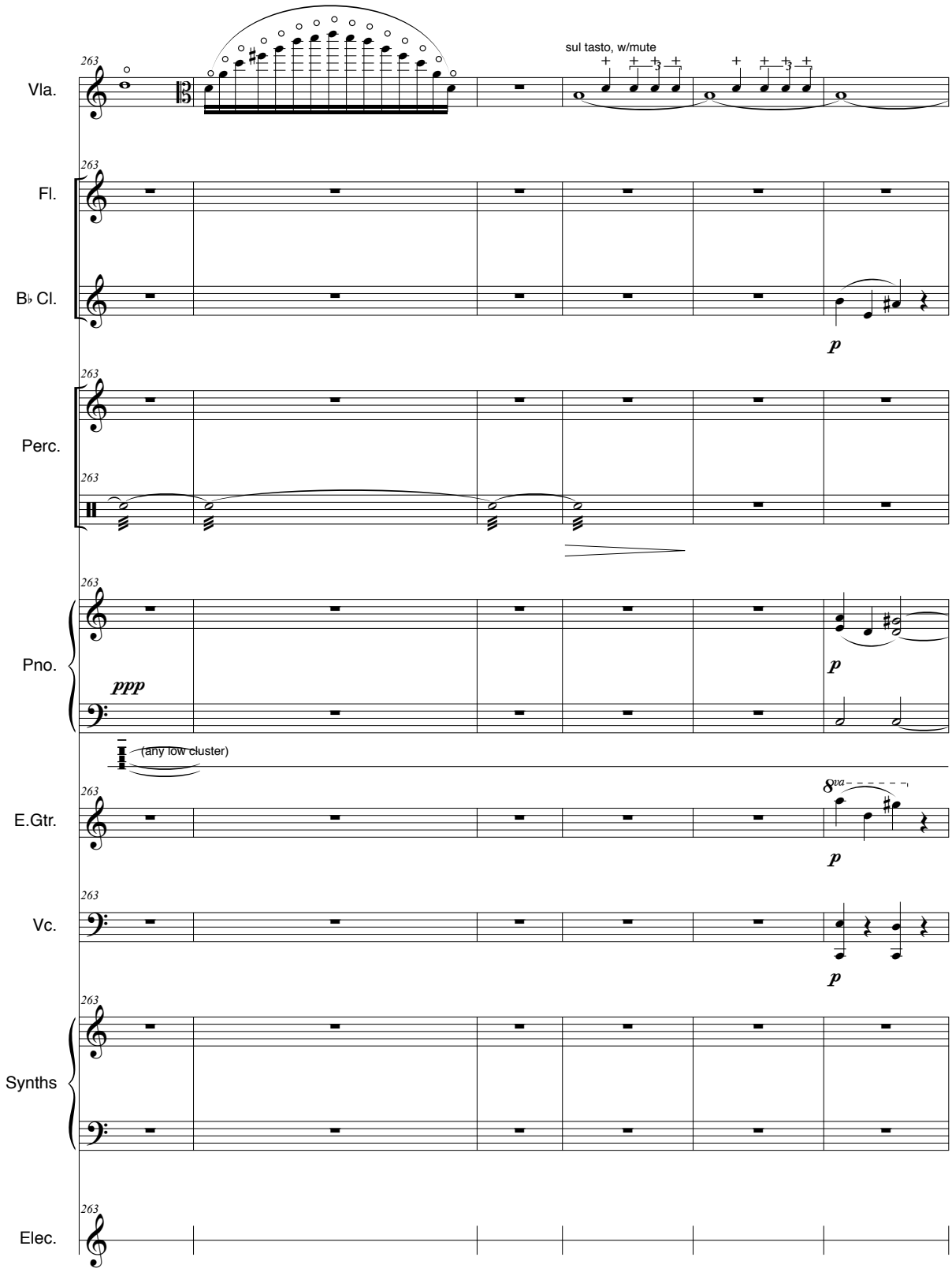

accel.
236
Vla.
mf
Fl.
flute
B♭ Cl.
Perc.
Pno.
p
pp
mp
E.Gtr.
P.M.
Vc.
Synths
Elec.

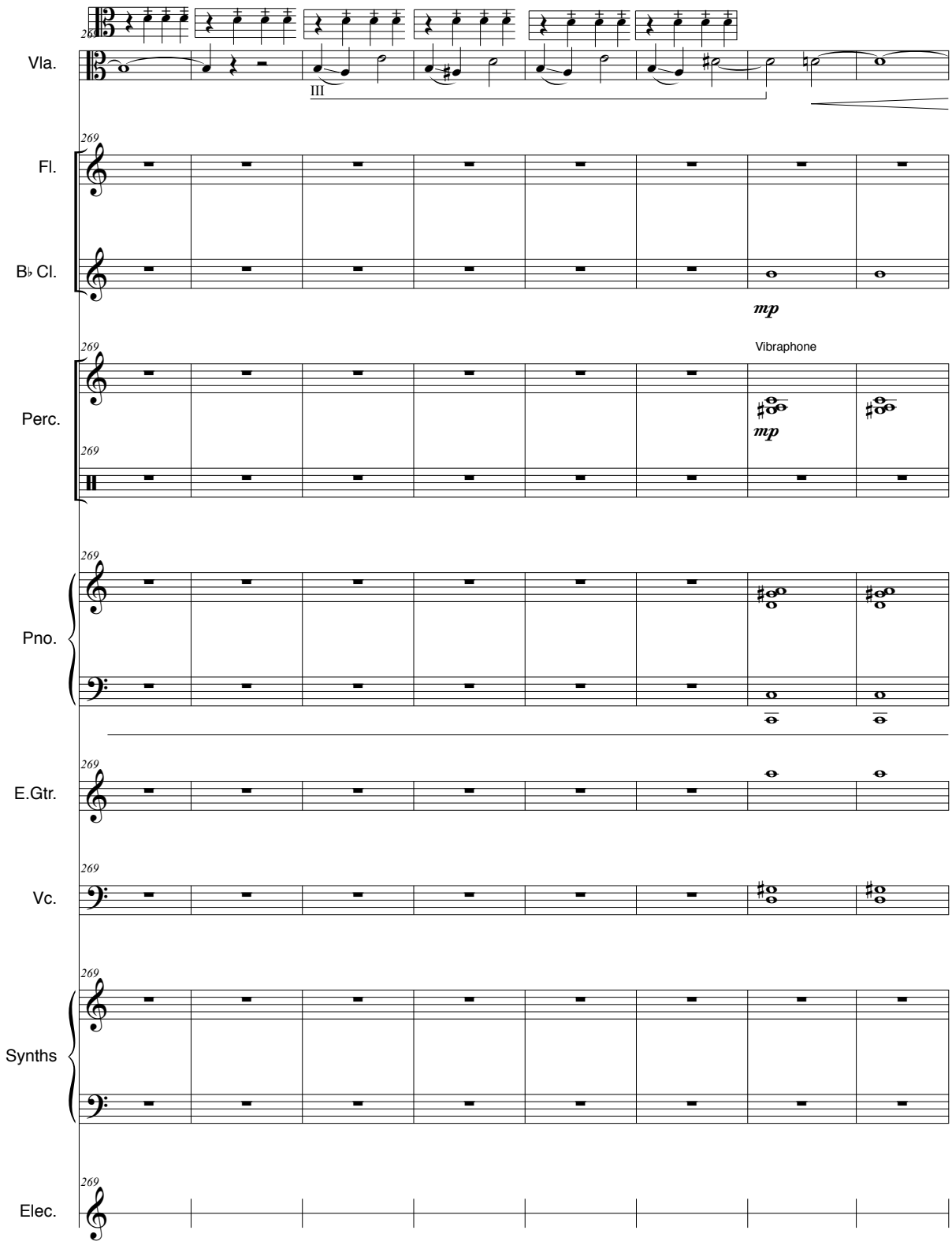

moving, ♩ = 140
241
Vla.
f
accel.
Fl.
B♭ Cl.
Perc.
mf
Xylophone
Pno.
E.Gtr.
8va
Vc.
Lead
Synths
mp
Elec.

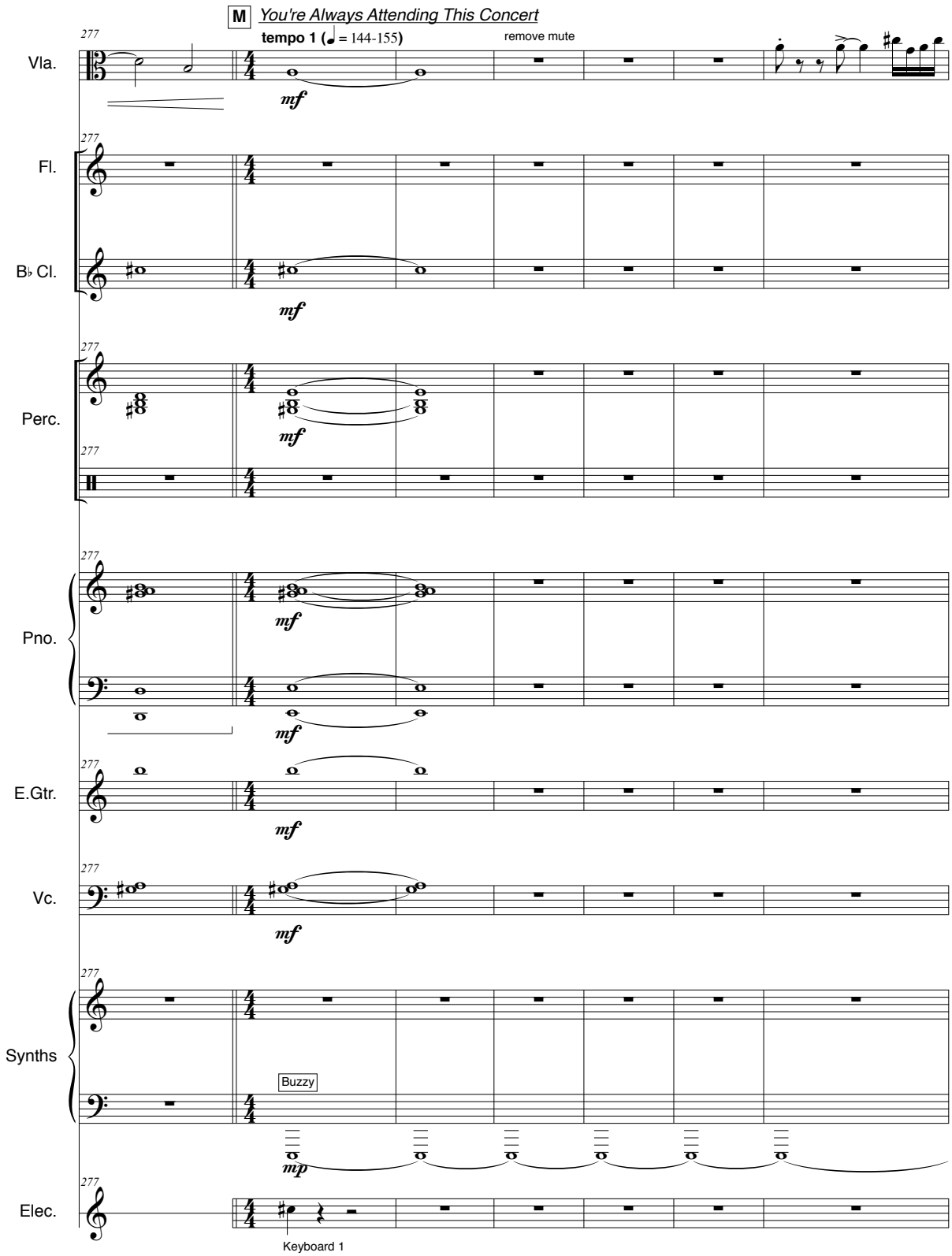

slow again, ♩ = 65
L
246
Vla.
p
picc.
Fl.
f
B♭ Cl.
airy
p
f
Perc.
ff
pp
Pno.
ff
p
E.Gtr.
p
Vc.
sul tasto
p
Synths
Elec.
Keyboard 1
deteriorate videos

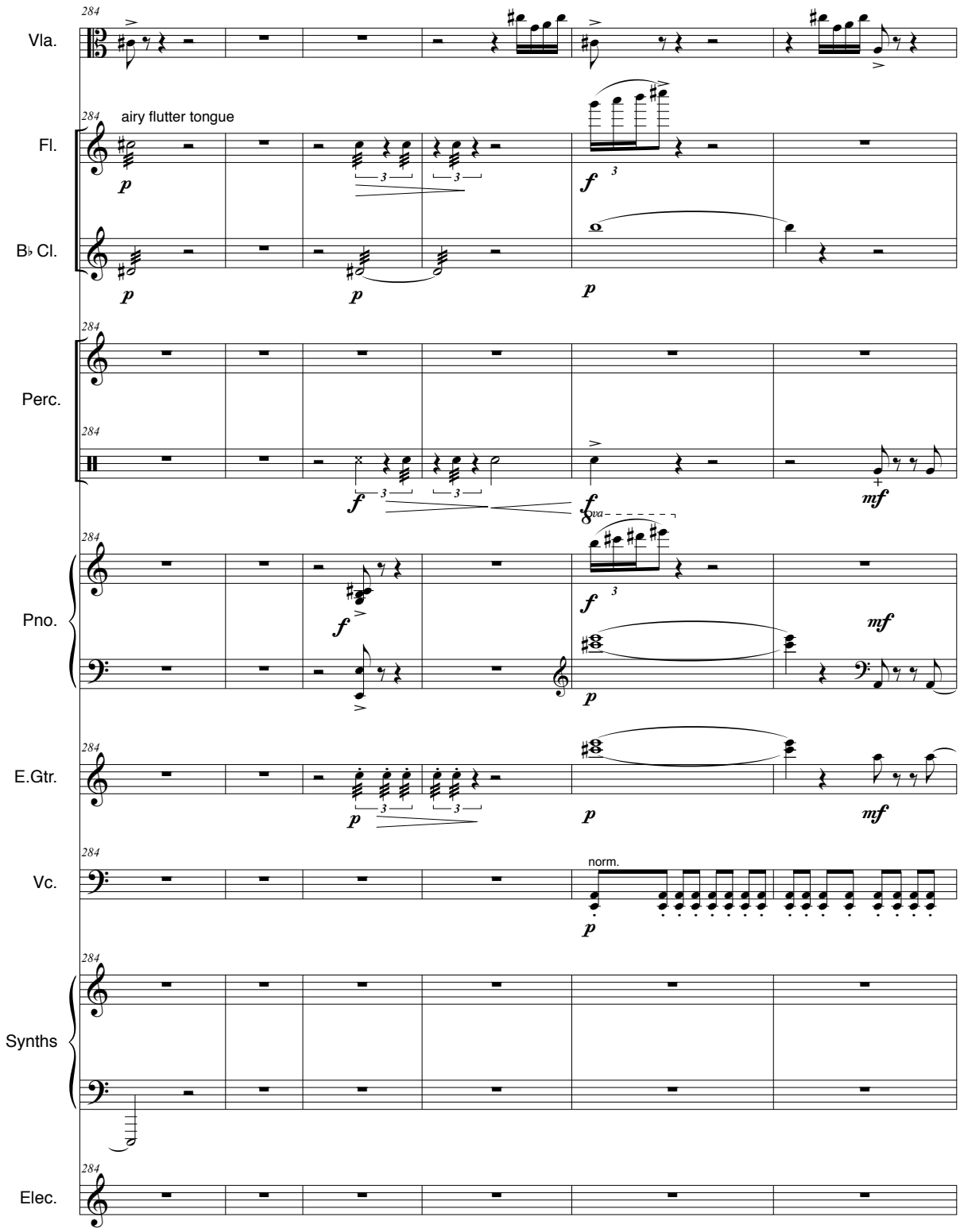

252
Vla.
252
flute
Fl.
pp
pp
B♭ Cl.
mp
252
Perc.
252
w/brushes
8va
252
Pno.
ppp
mp
ppp
(any low cluster)
8va
252
E.Gtr.
mp
252
Vc.
mp
252
Synths
252
Elec.

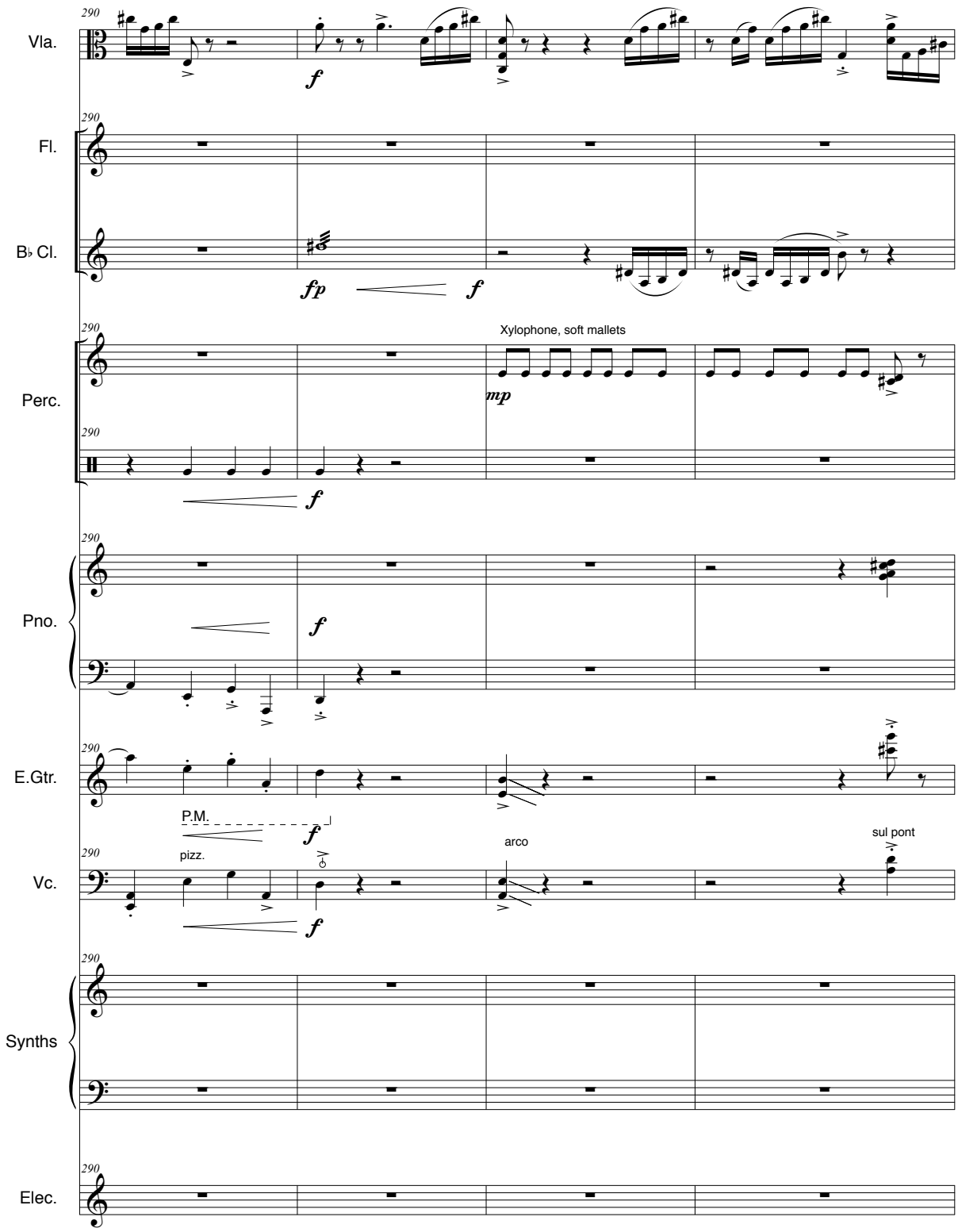

257
Vla.
(natural)
III
(natural)
IV
Fl.
pp
pp
B♭ Cl.
mf
Perc.
Pno.
15ma
mf
E.Gtr.
mf
Vc.
mf
Synths
Elec.

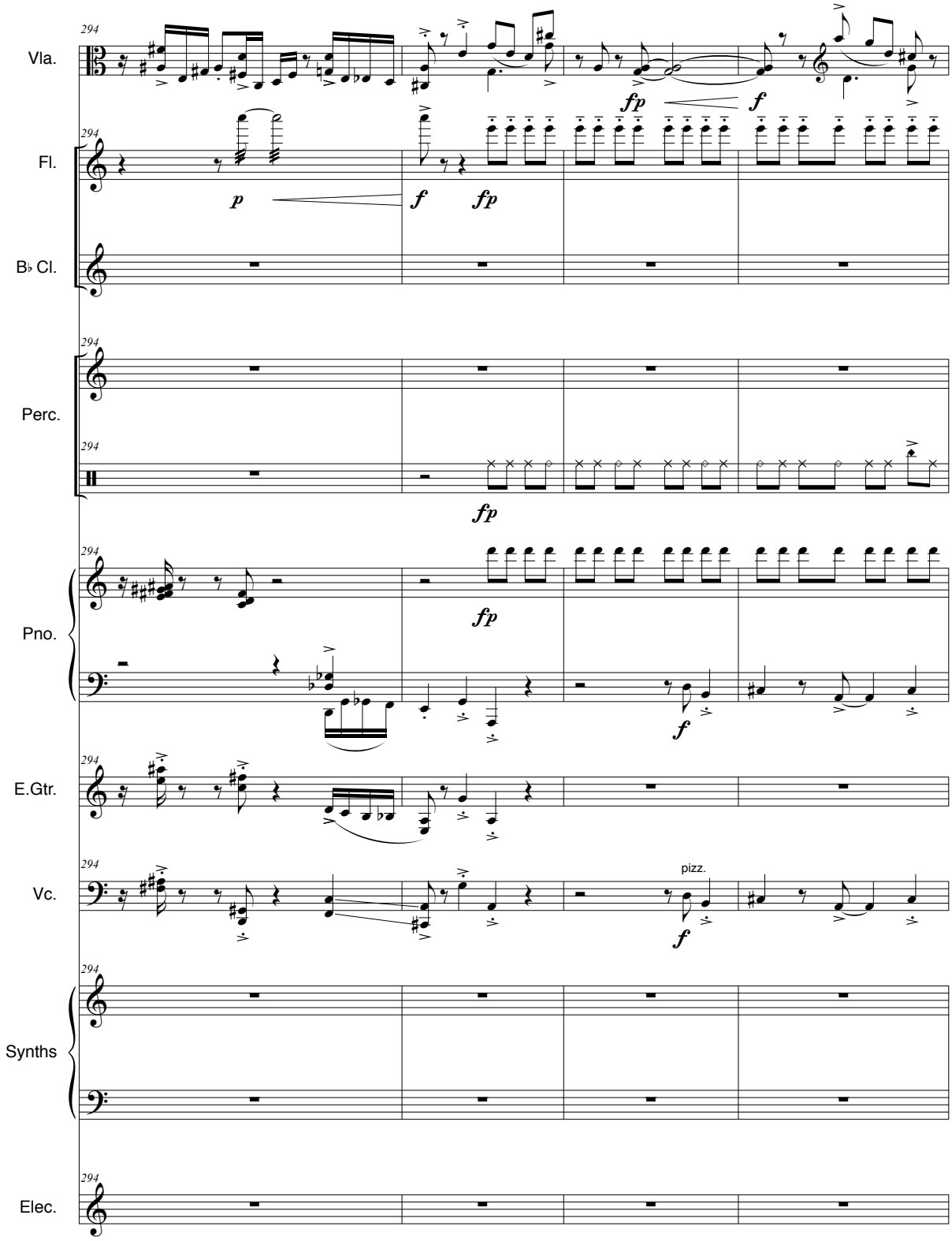

263
Vla.
sul tasto, w/mute
Fl.
B♭ Cl.
p
Perc.
Pno.
ppp
p
(any low cluster)
E.Gtr.
8va
p
Vc.
p
Synths
Elec.

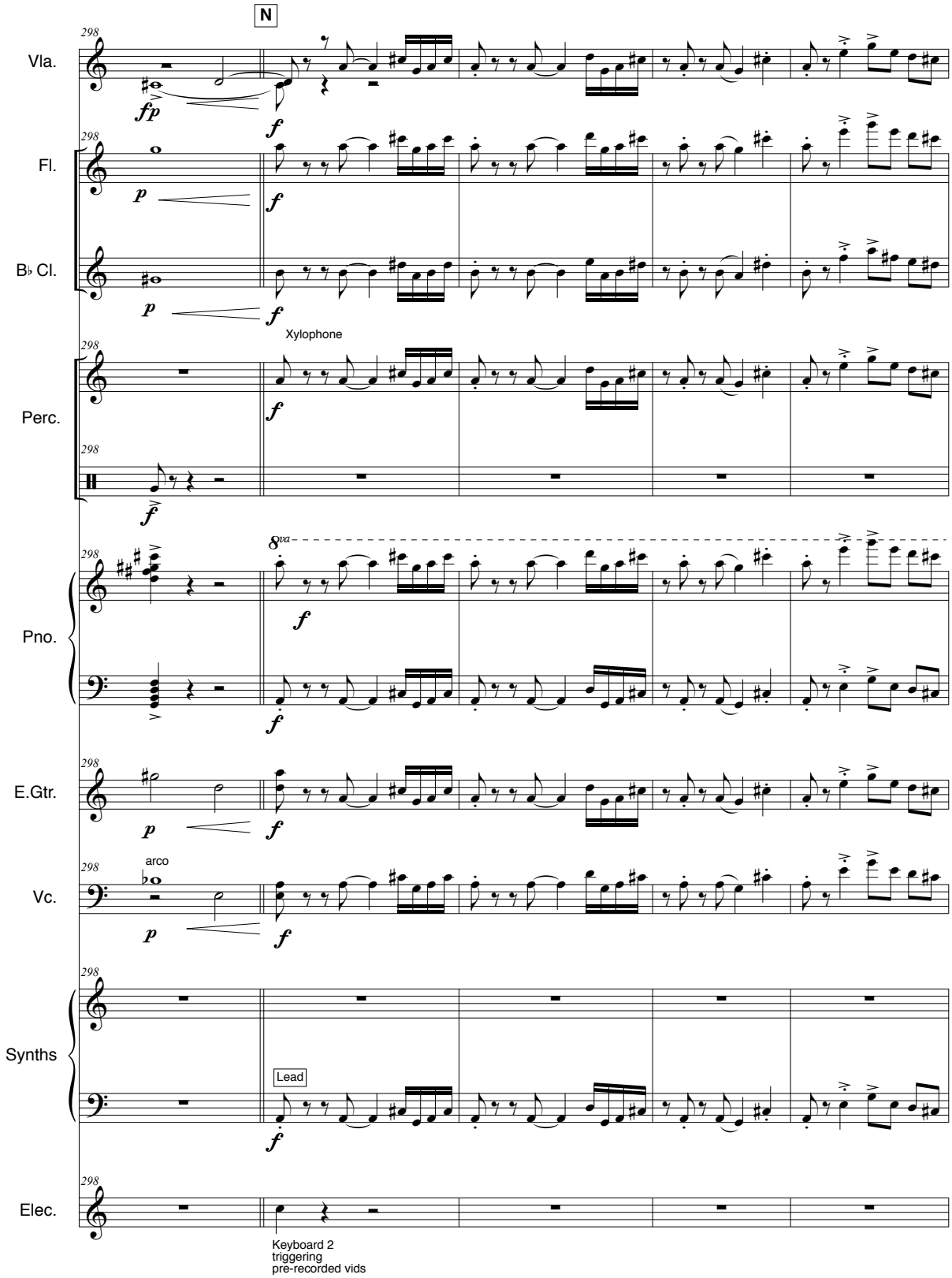

269
Vla.
III
269
Fl.
B♭ Cl.
mp
269
Vibraphone
Perc.
mp
269
Pno.
269
E.Gtr.
269
Vc.
269
Synths
269
Elec.

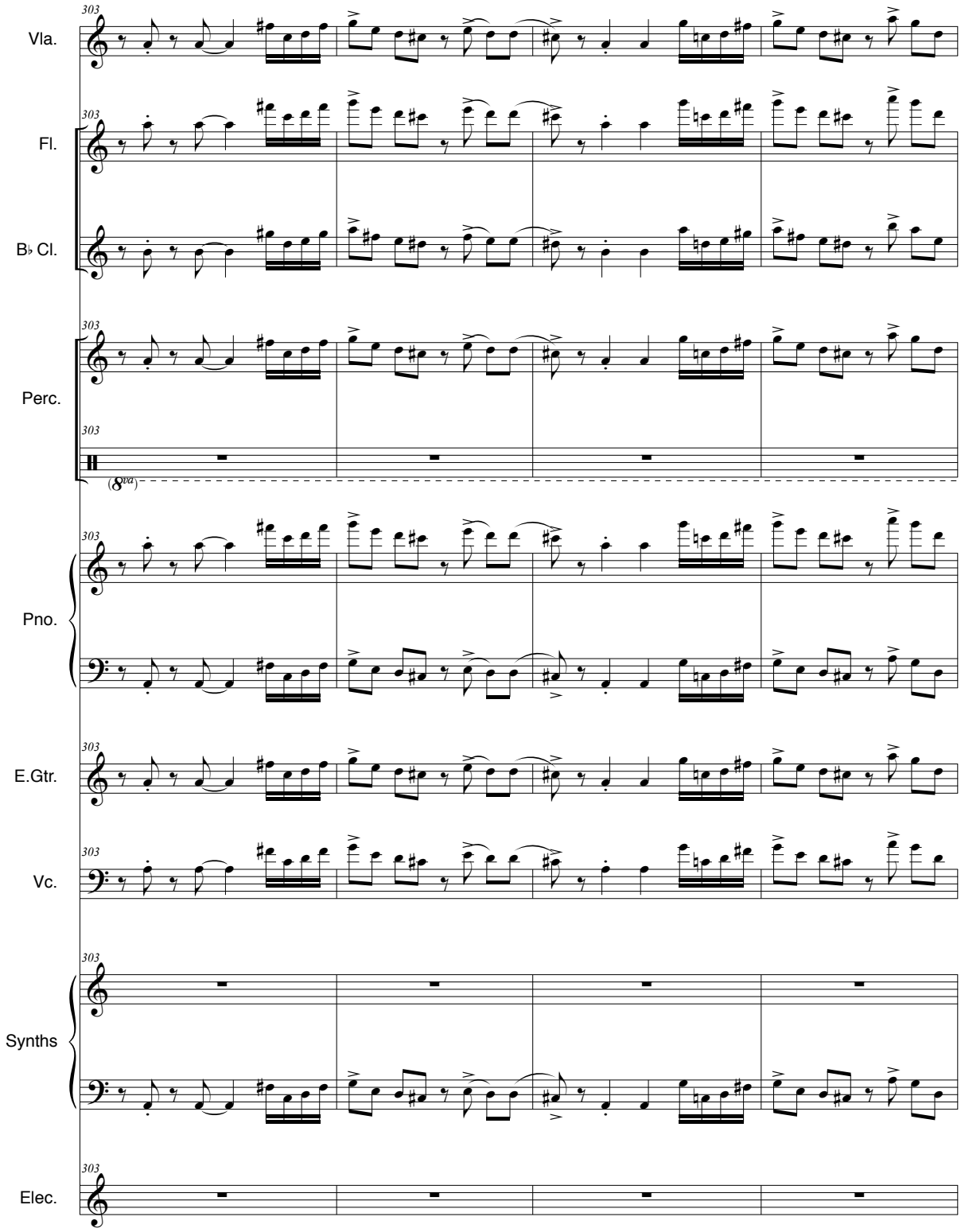

M
You're Always Attending This Concert
277
tempo 1 (♩ = 144-155)
remove mute
Vla.
mf
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Buzzy
mp
Elec.
Keyboard 1

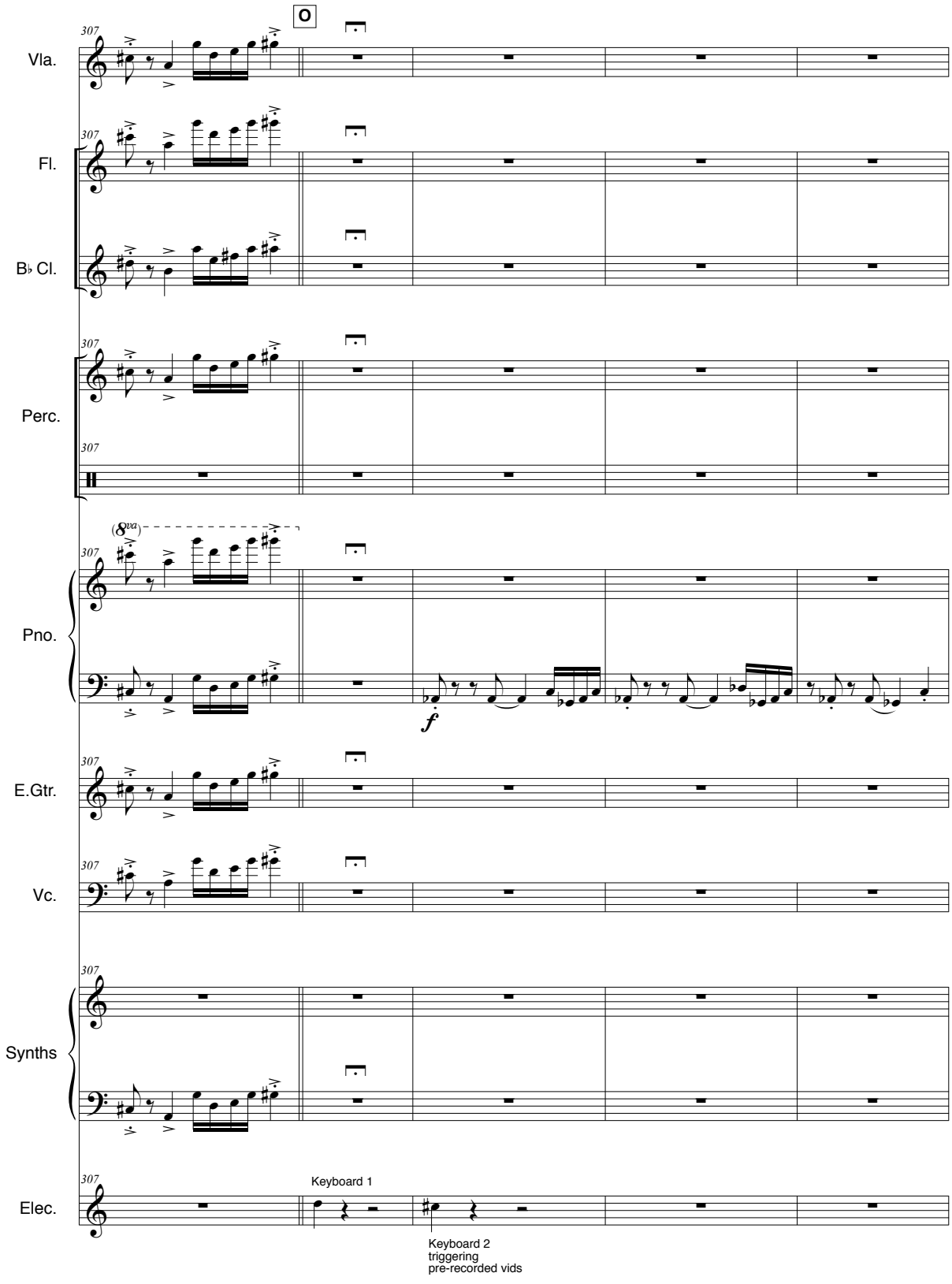

284
Vla.
284
airy flutter tongue
Fl.
B♭ Cl.
284
Perc.
284
284
Pno.
284
E.Gtr.
284
norm.
Vc.
284
Synths
284
Elec.

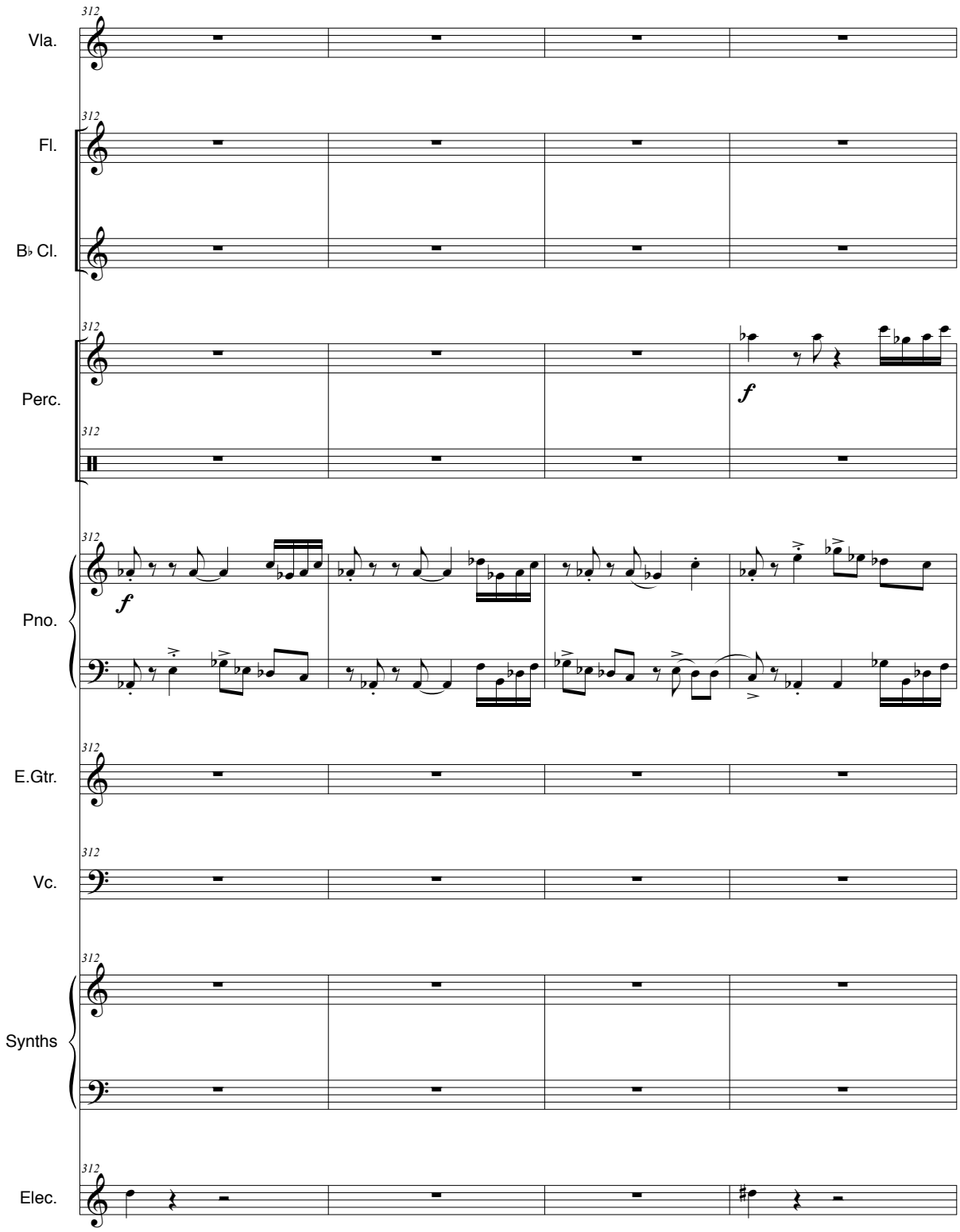

290
Vla.
f
Fl.
B♭ Cl.
fp
f
Perc.
Xylophone, soft mallets
mp
f
Pno.
f
E.Gtr.
P.M.
f
pizz.
arco
sul pont
Vc.
f
Synths
Elec.

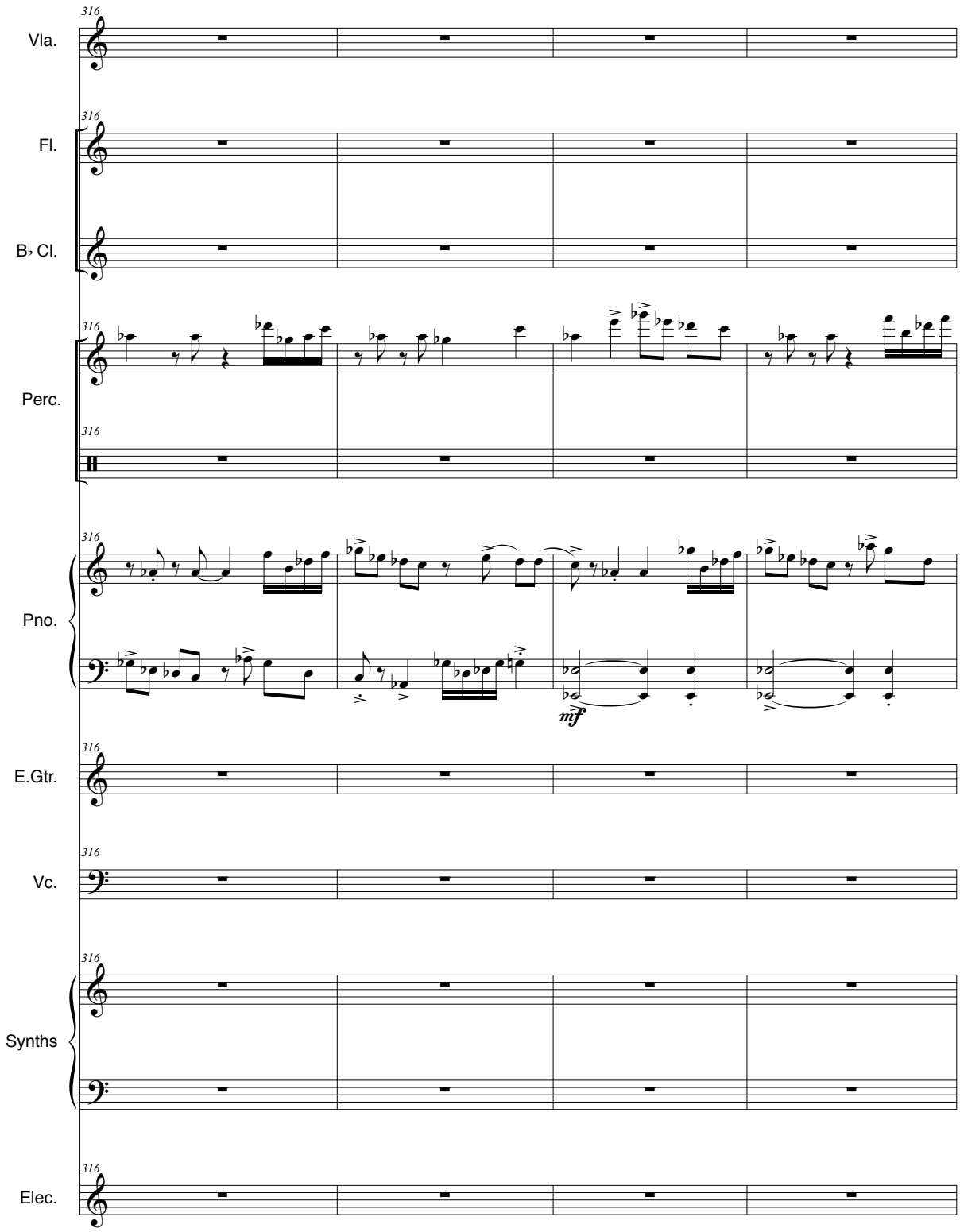

294
Vla.
fp
f
Fl.
p
f
fp
B♭ Cl.
Perc.
fp
Pno.
fp
f
E.Gtr.
Vc.
pizz.
f
Synths
Elec.

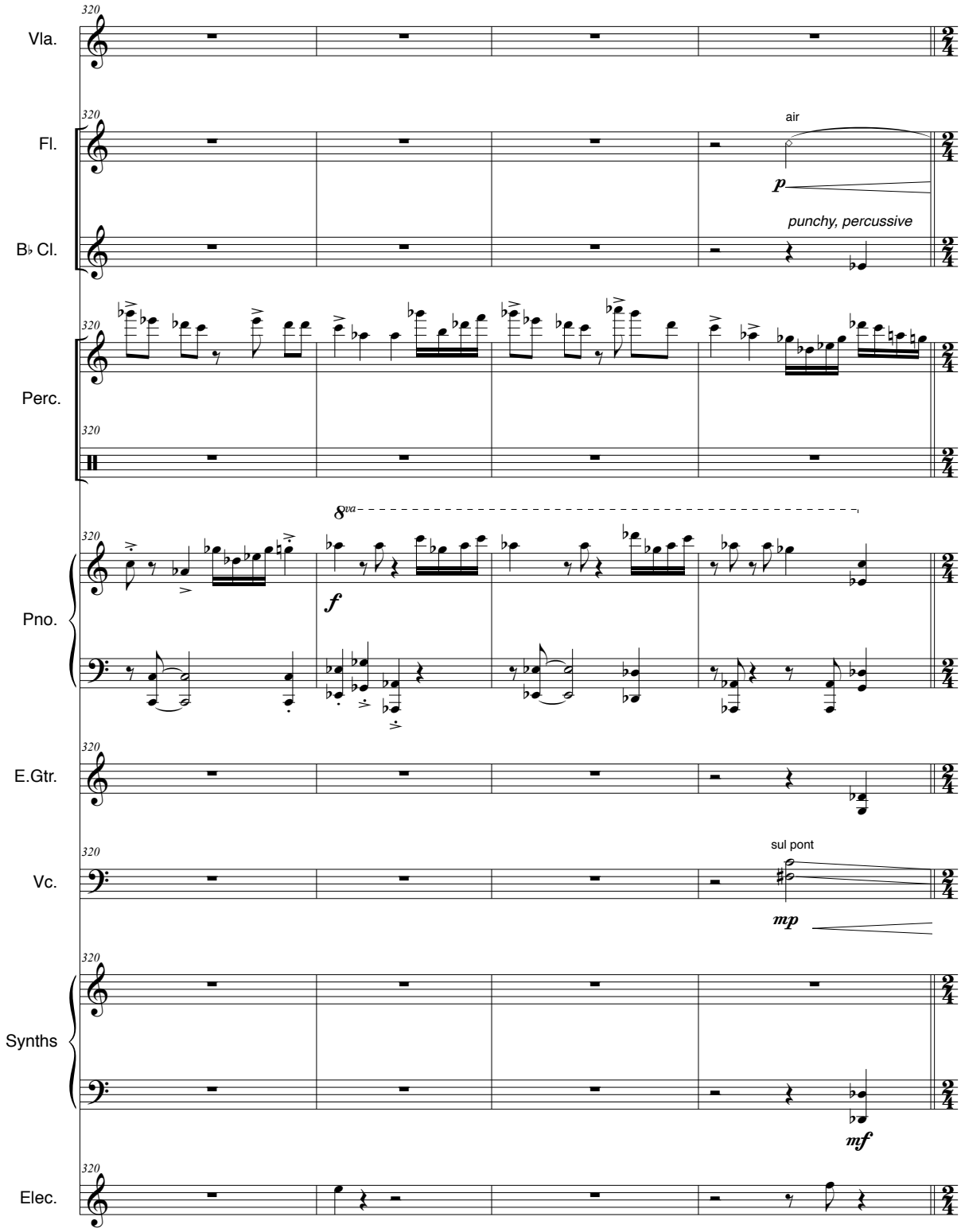

N
298
Vla.
fp
f
Fl.
p
f
B♭ Cl.
p
f
Xylophone
Perc.
f
f
Pno.
8va
f
f
E.Gtr.
p
f
arco
Vc.
p
f
Synths
Lead
f
Elec.
Keyboard 2
triggering
pre-recorded vids

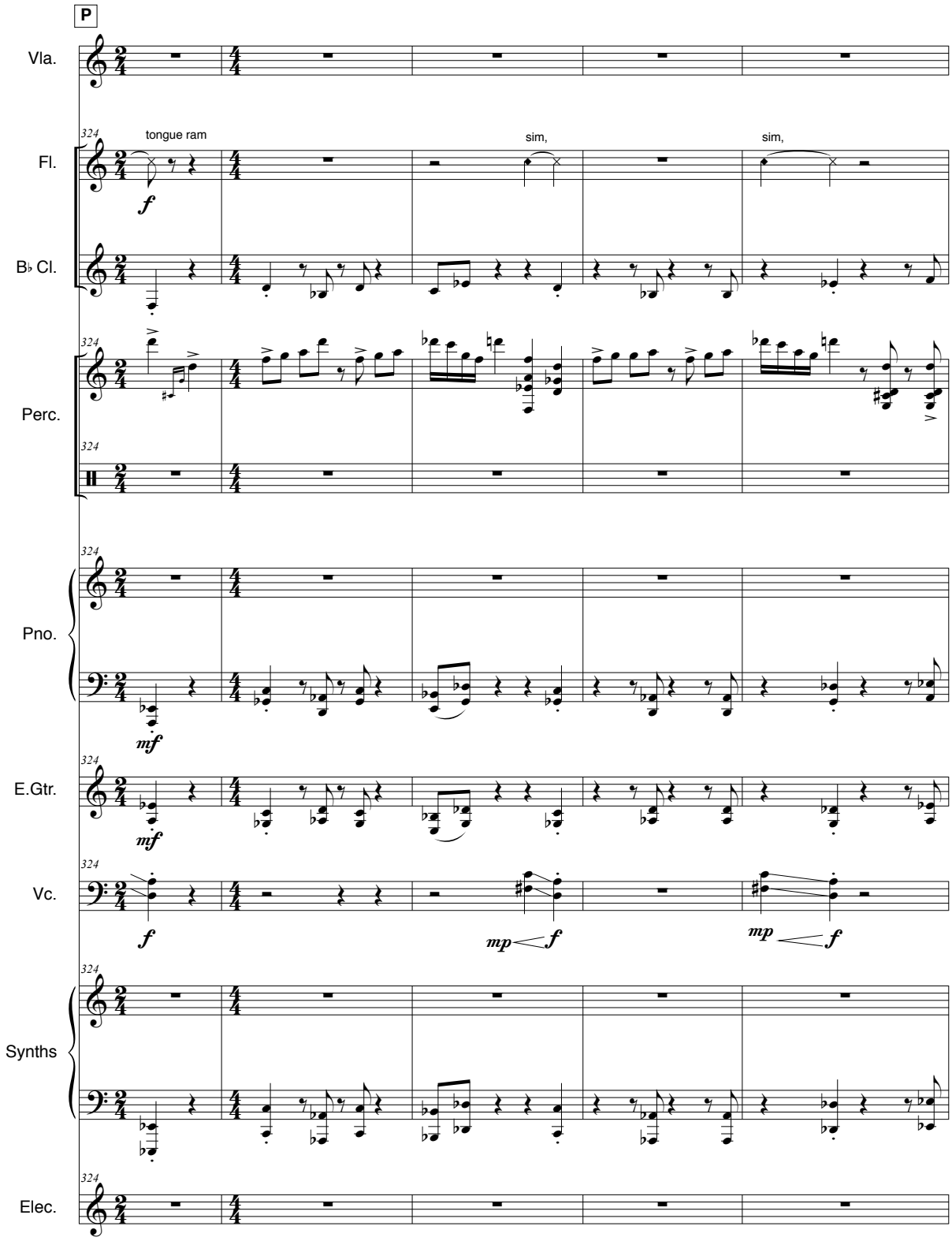

303
Vla.
Fl.
B♭ Cl.
Perc.
(8va)
Pno.
E.Gtr.
Vc.
Synths
Elec.

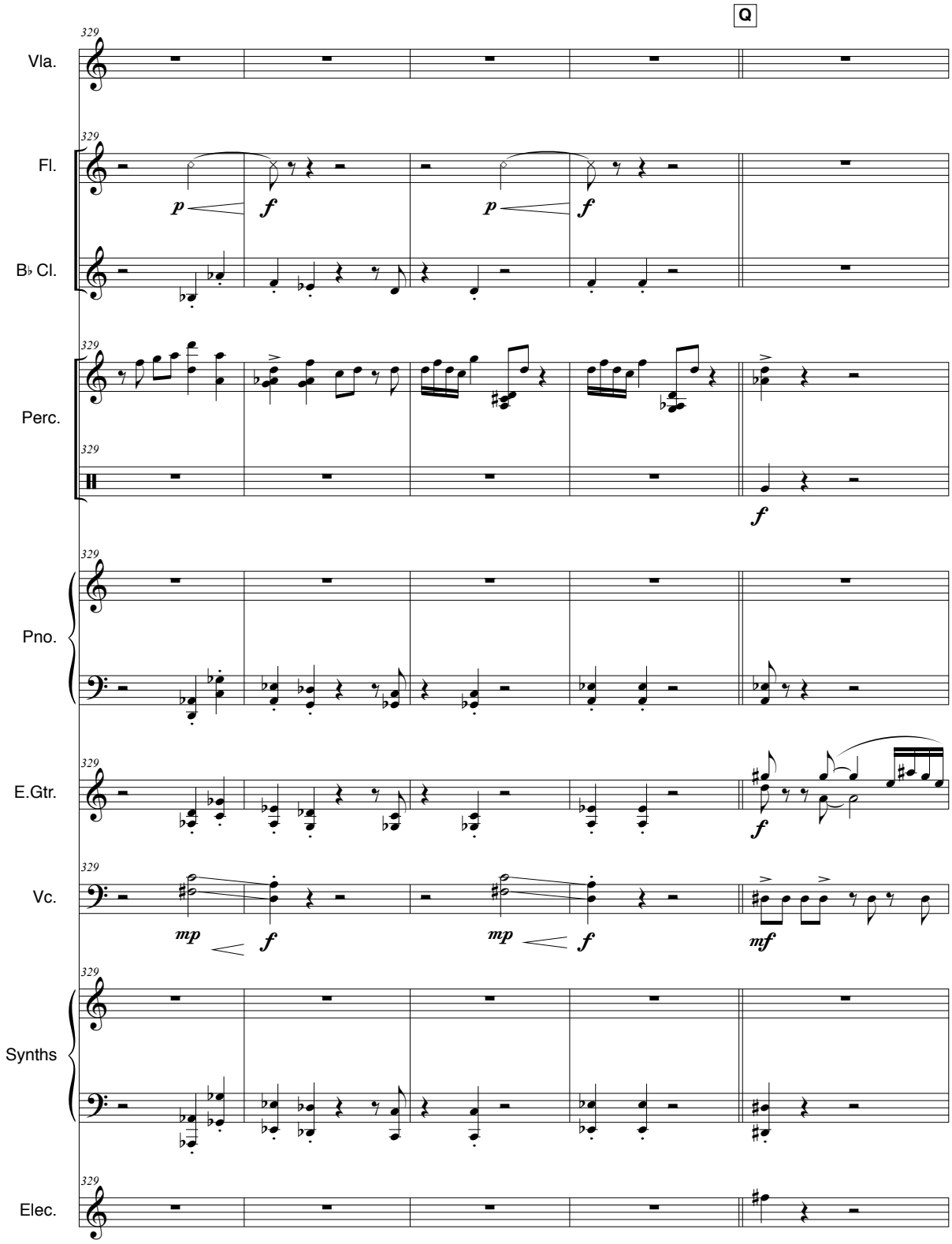

O
307
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
(8va)
f
E.Gtr.
Vc.
Synths
Elec.
Keyboard 1
Keyboard 2
triggering
pre-recorded vids

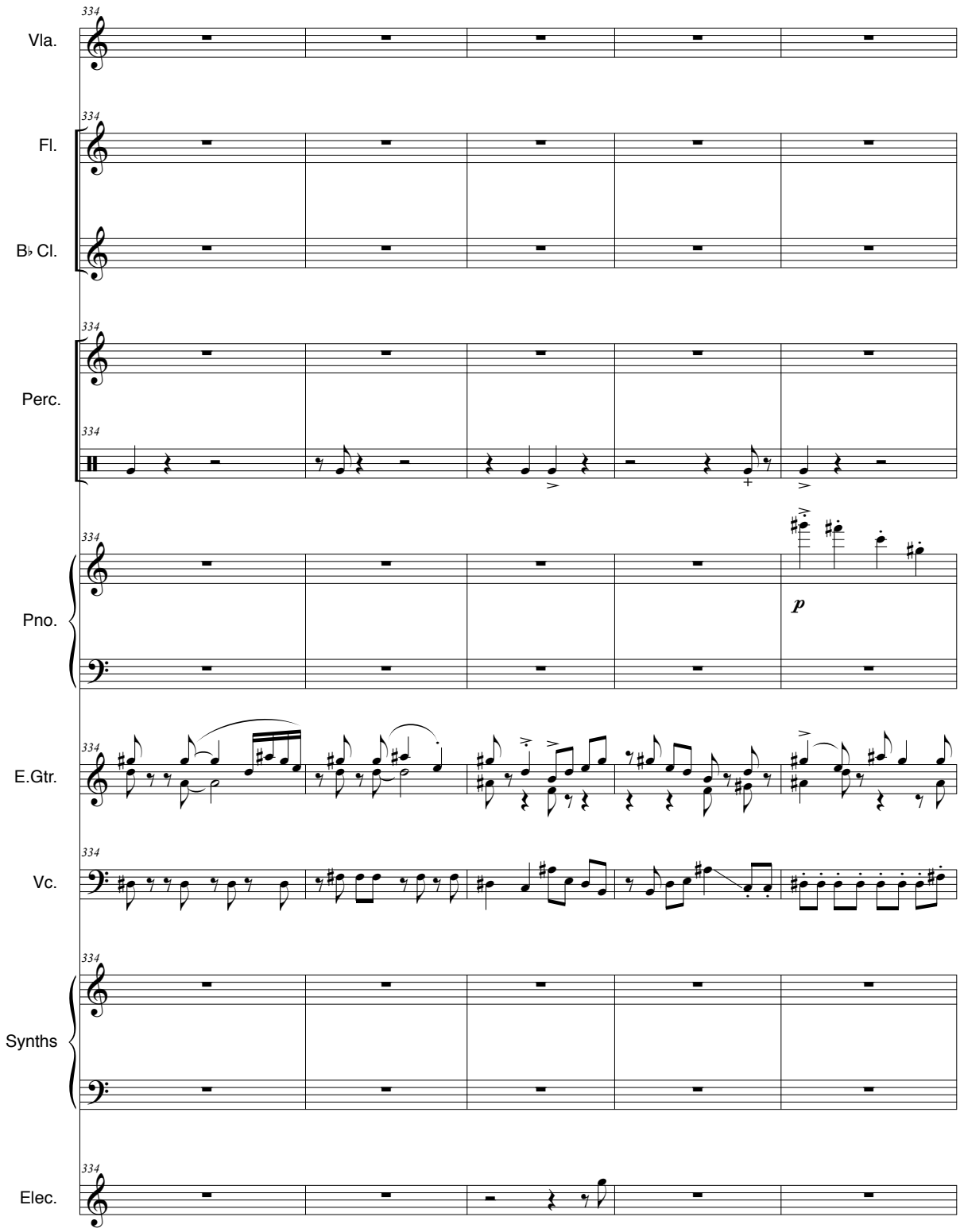

312
Vla.
312
Fl.
B♭ Cl.
312
Perc.
312
f
312
Pno.
f
312
E.Gtr.
312
Vc.
312
Synths
312
Elec.

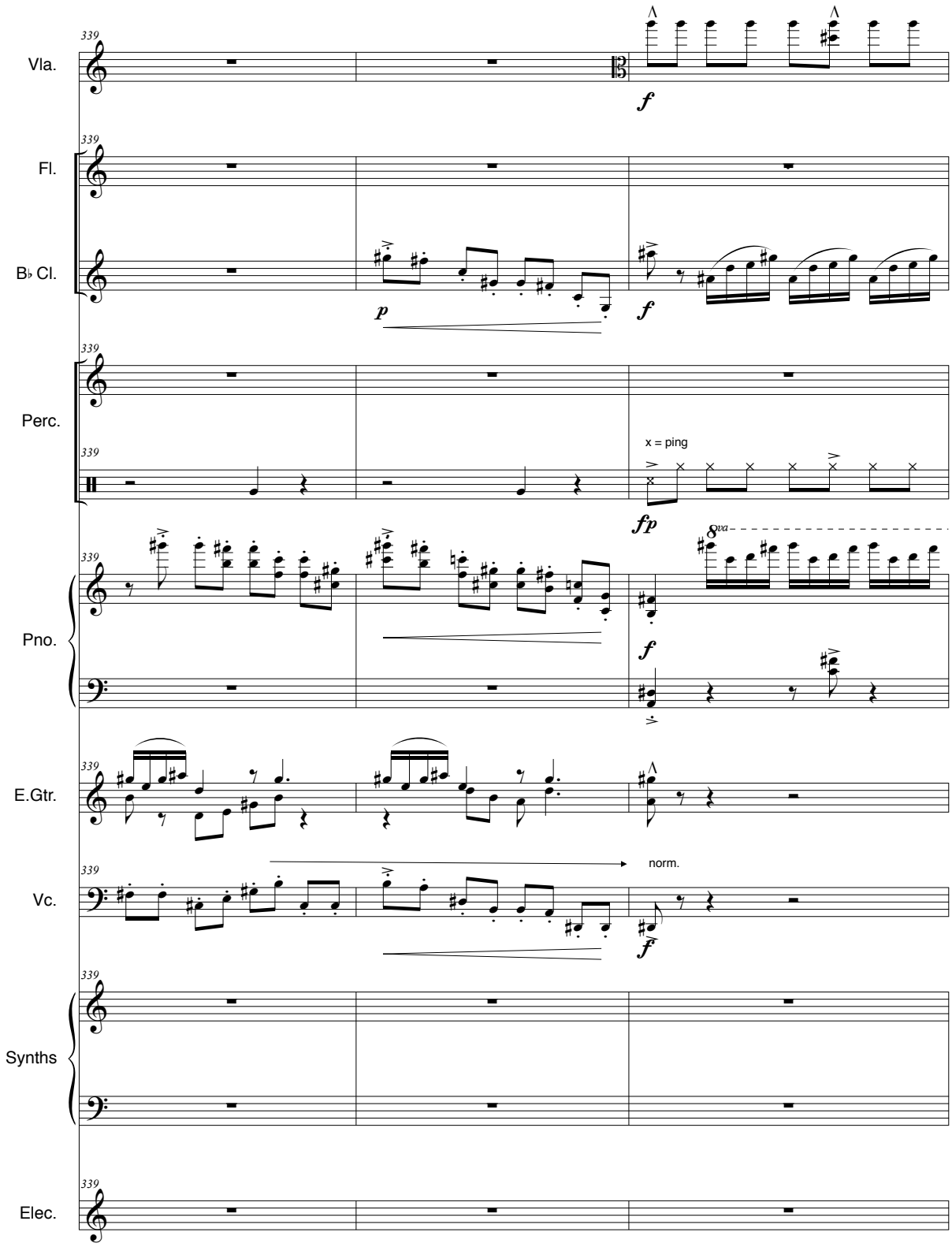

316
Vla.
316
Fl.
B♭ Cl.
316
Perc.
316
316
Pno.
mf
316
E.Gtr.
316
Vc.
316
Synths
316
Elec.

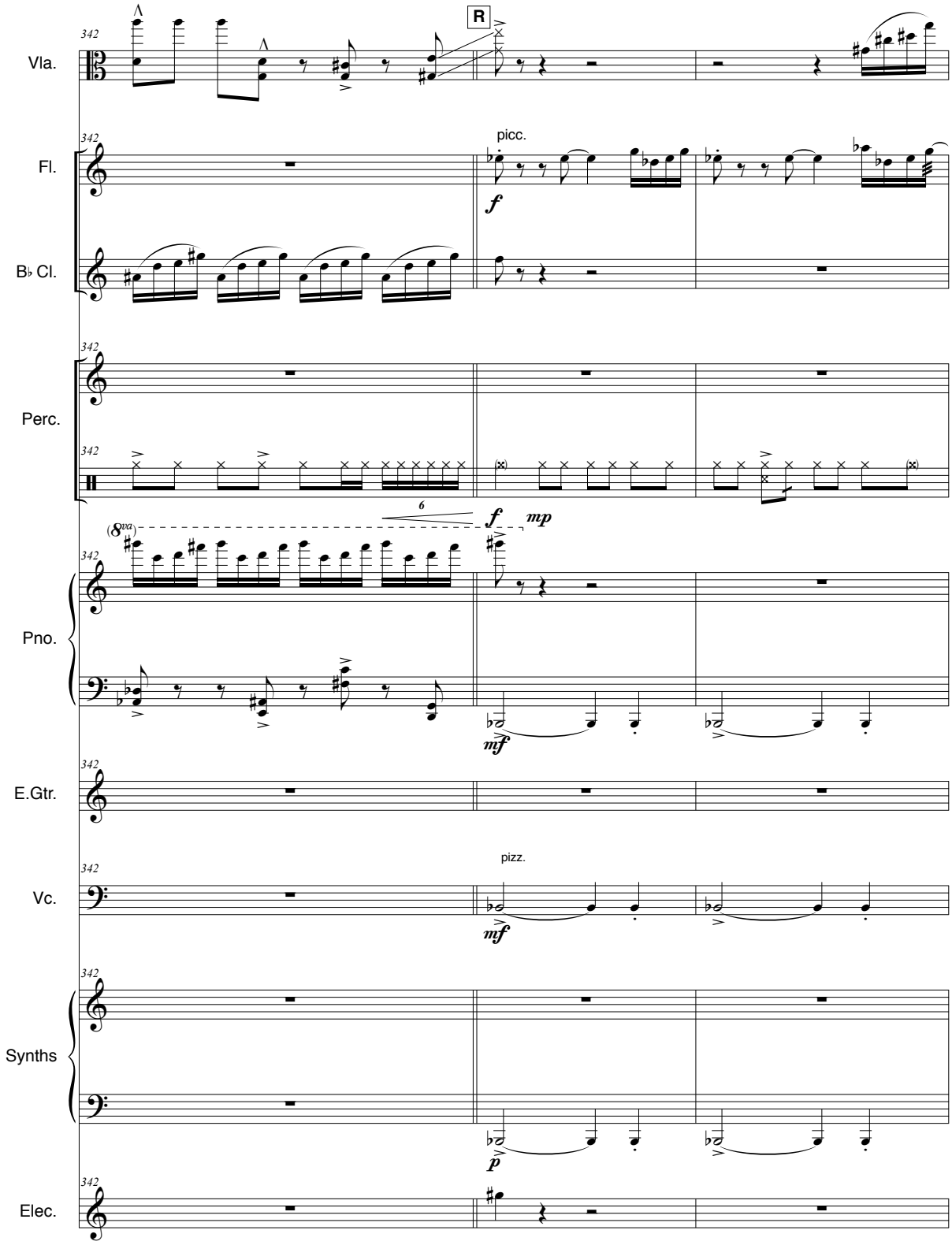

320
Vla.
Fl.
air
p
B♭ Cl.
punchy, percussive
Perc.
8va
Pno.
f
E.Gtr.
Vc.
sul pont
mp
Synths
mf
Elec.

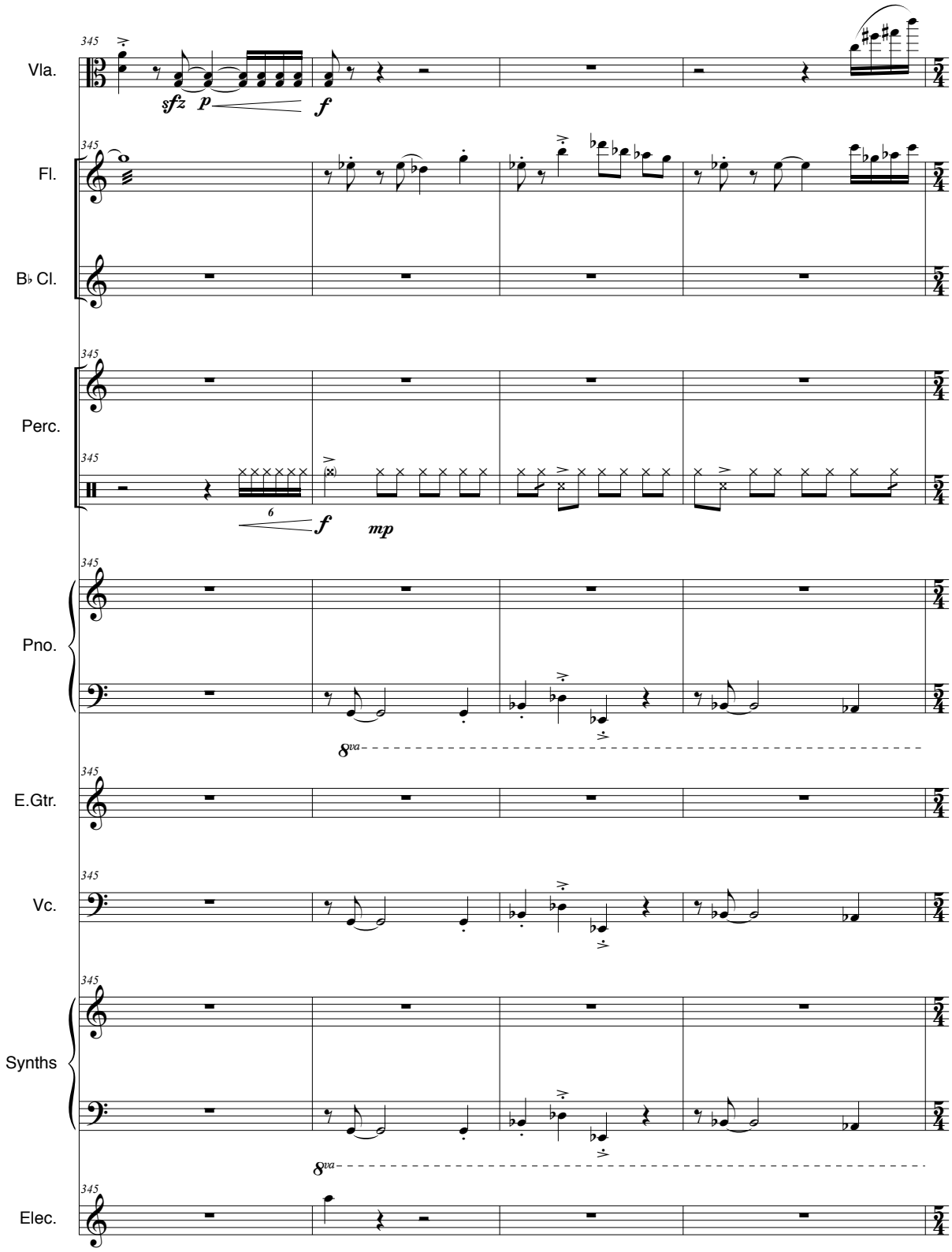

P
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
324
tongue ram
sim,
sim,
f
mf
mf
f
mp
f
mp
f

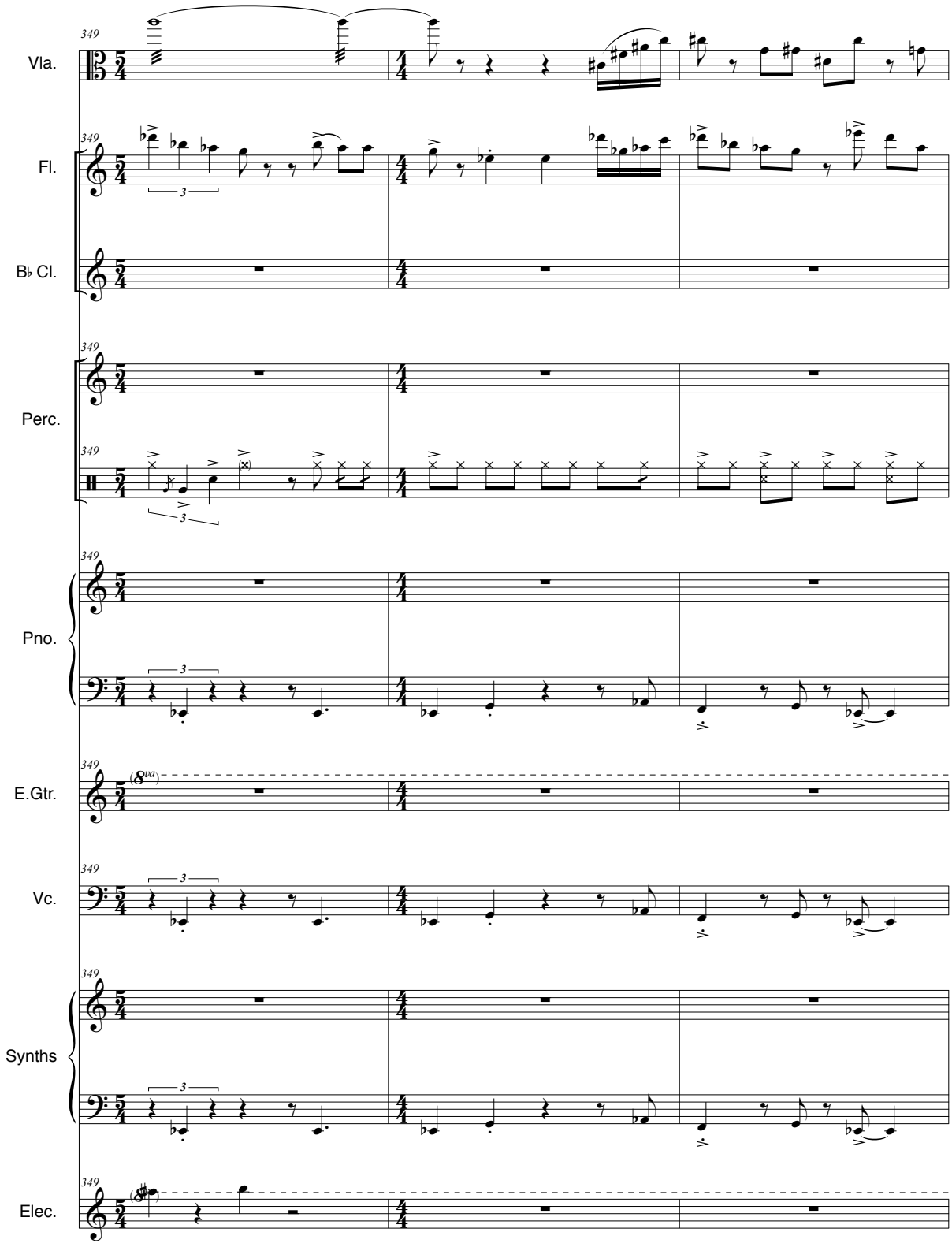

Q
329
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
p
f
mp
mf

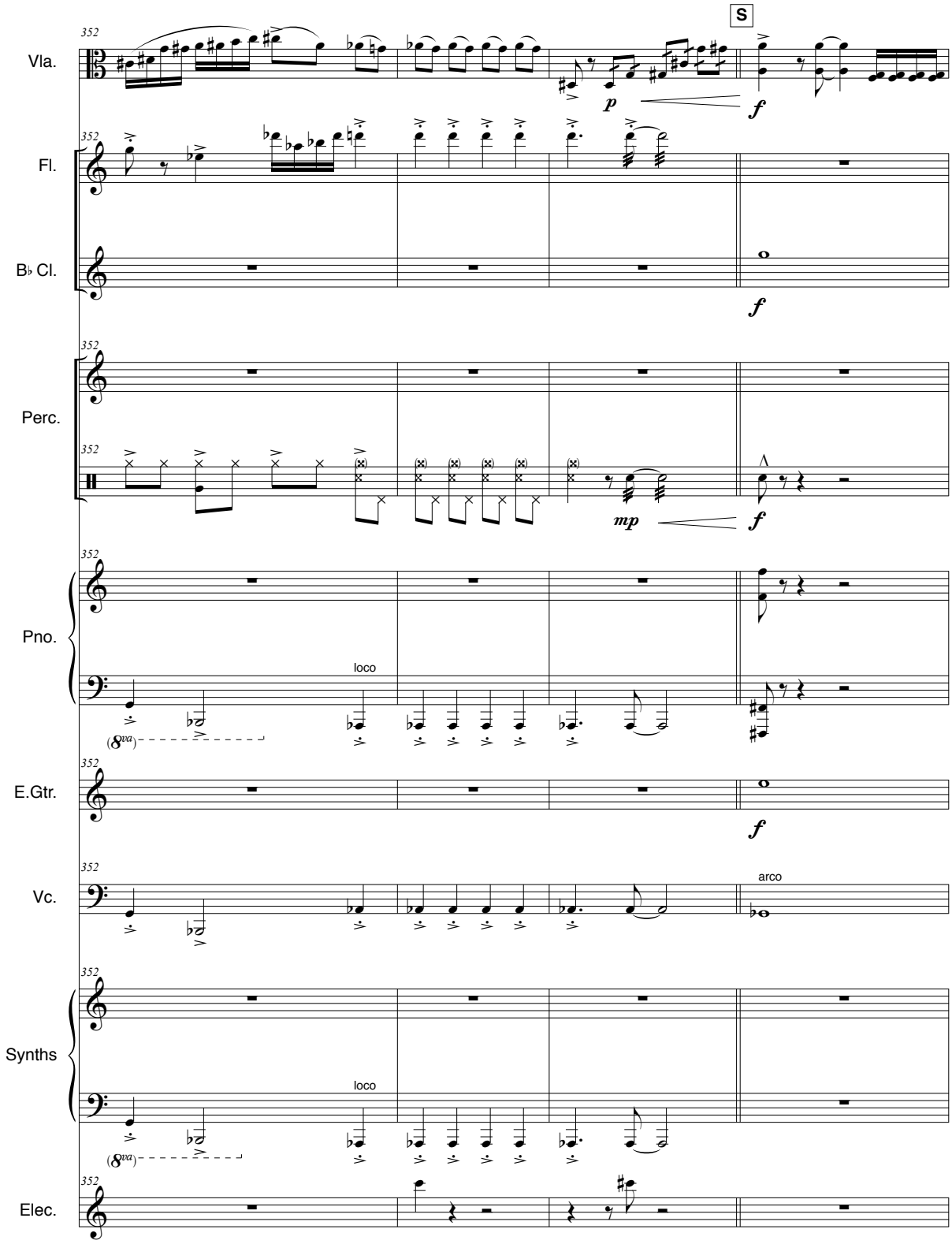

334
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
p
E.Gtr.
Vc.
Synths
Elec.

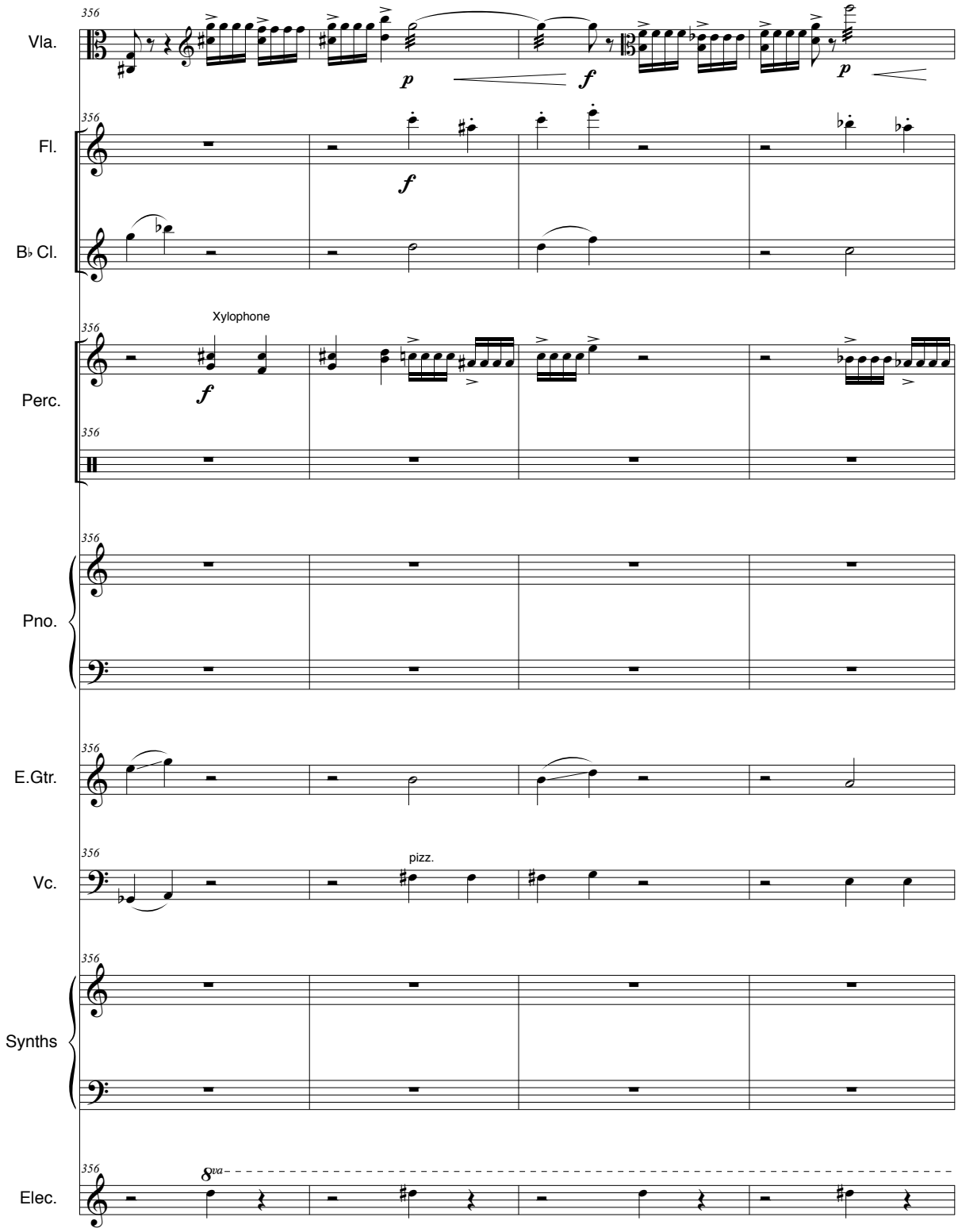

339
Vla.
f
Fl.
B♭ Cl.
p
f
Perc.
x = ping
fp
Pno.
8va
E.Gtr.
Vc.
norm.
Synths
Elec.

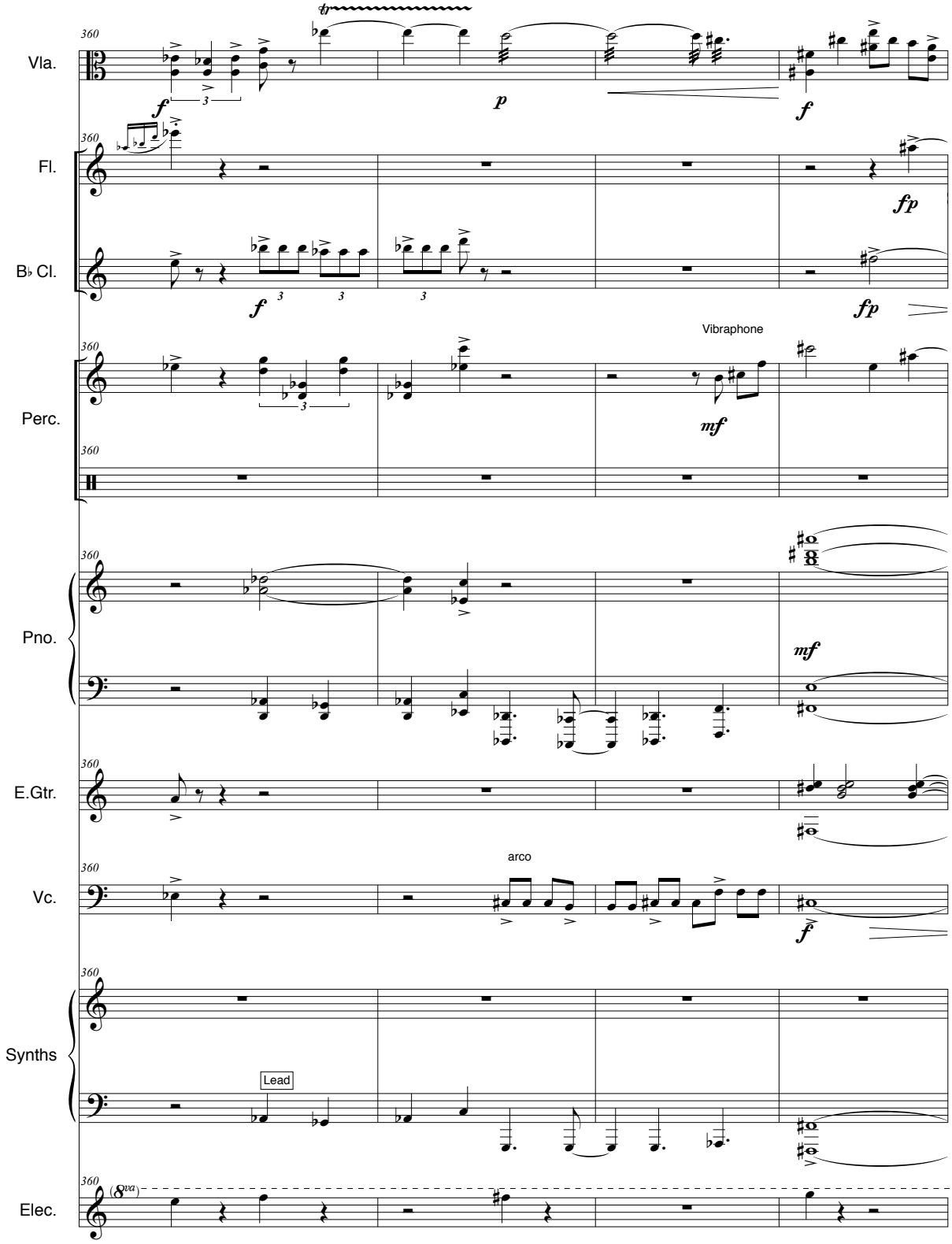

342
Vla.
R
picc.
Fl.
f
B♭ Cl.
Perc.
(8va)
6
f
mp
Pno.
mf
E.Gtr.
pizz.
Vc.
mf
Synths
p
Elec.

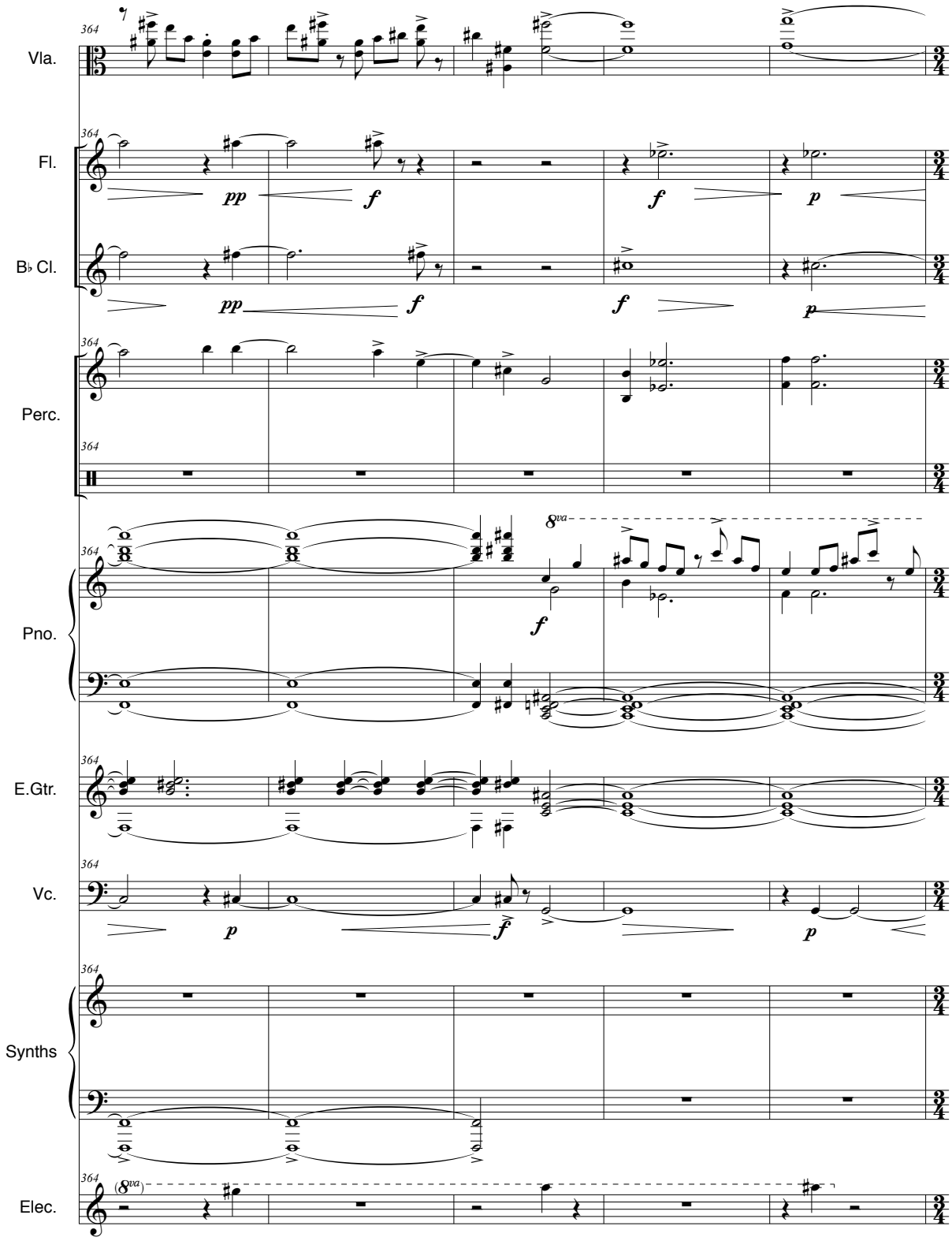

345
Vla.
sfz
p
f
Fl.
B♭ Cl.
Perc.
6
f
mp
Pno.
8va
E.Gtr.
Vc.
Synths
8va
Elec.

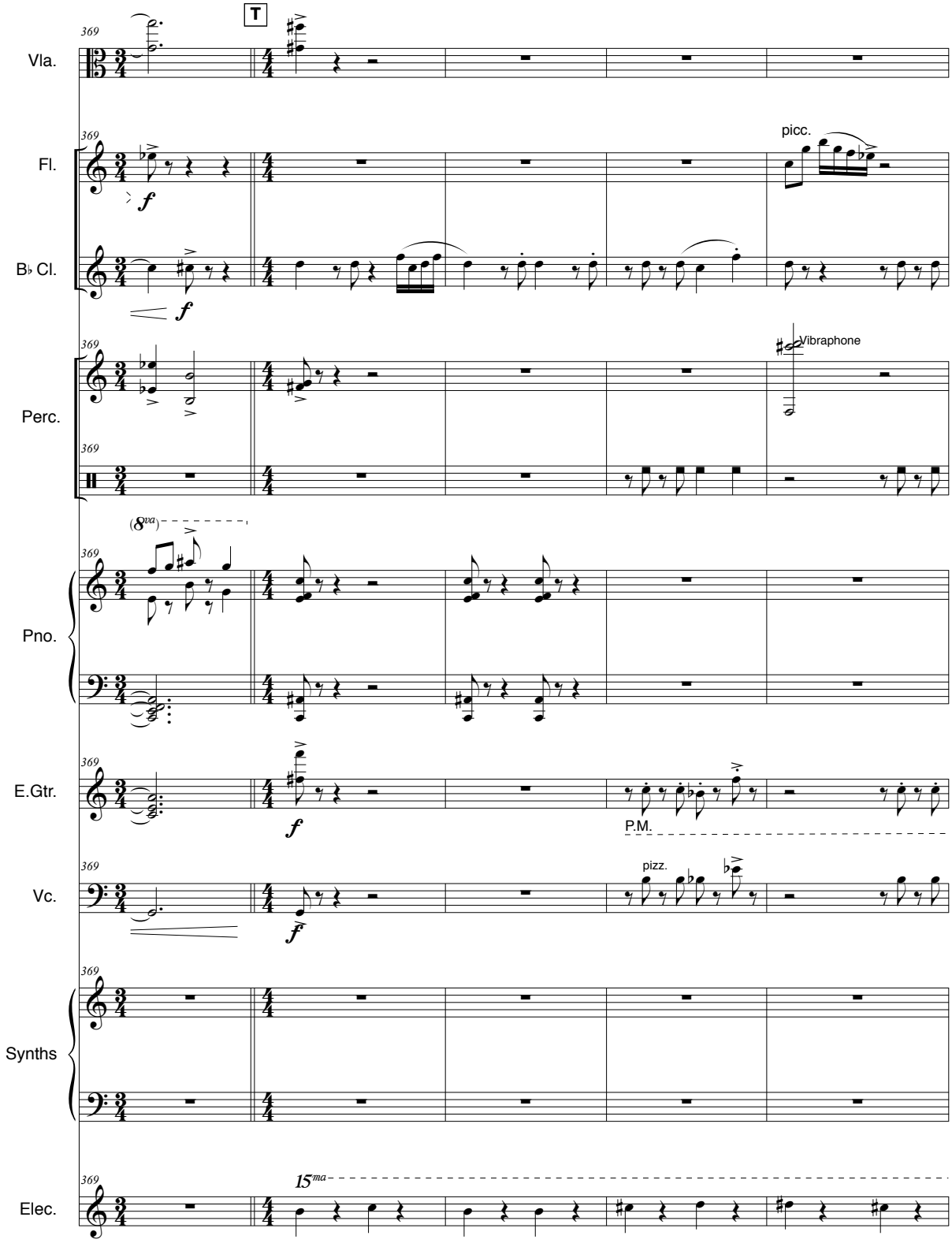

349
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.

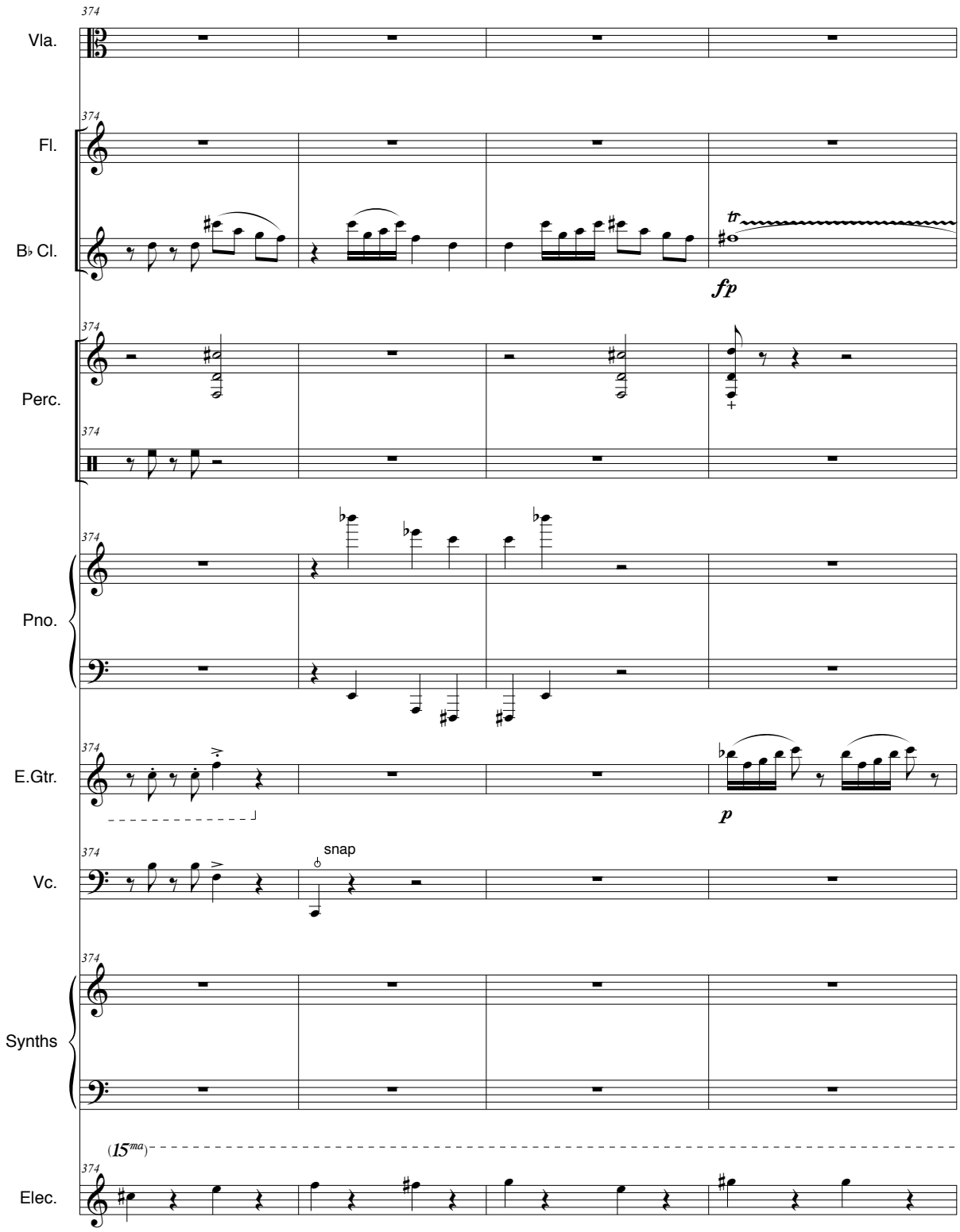

S
352
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
p
f
mp
loco
arco
(8va)

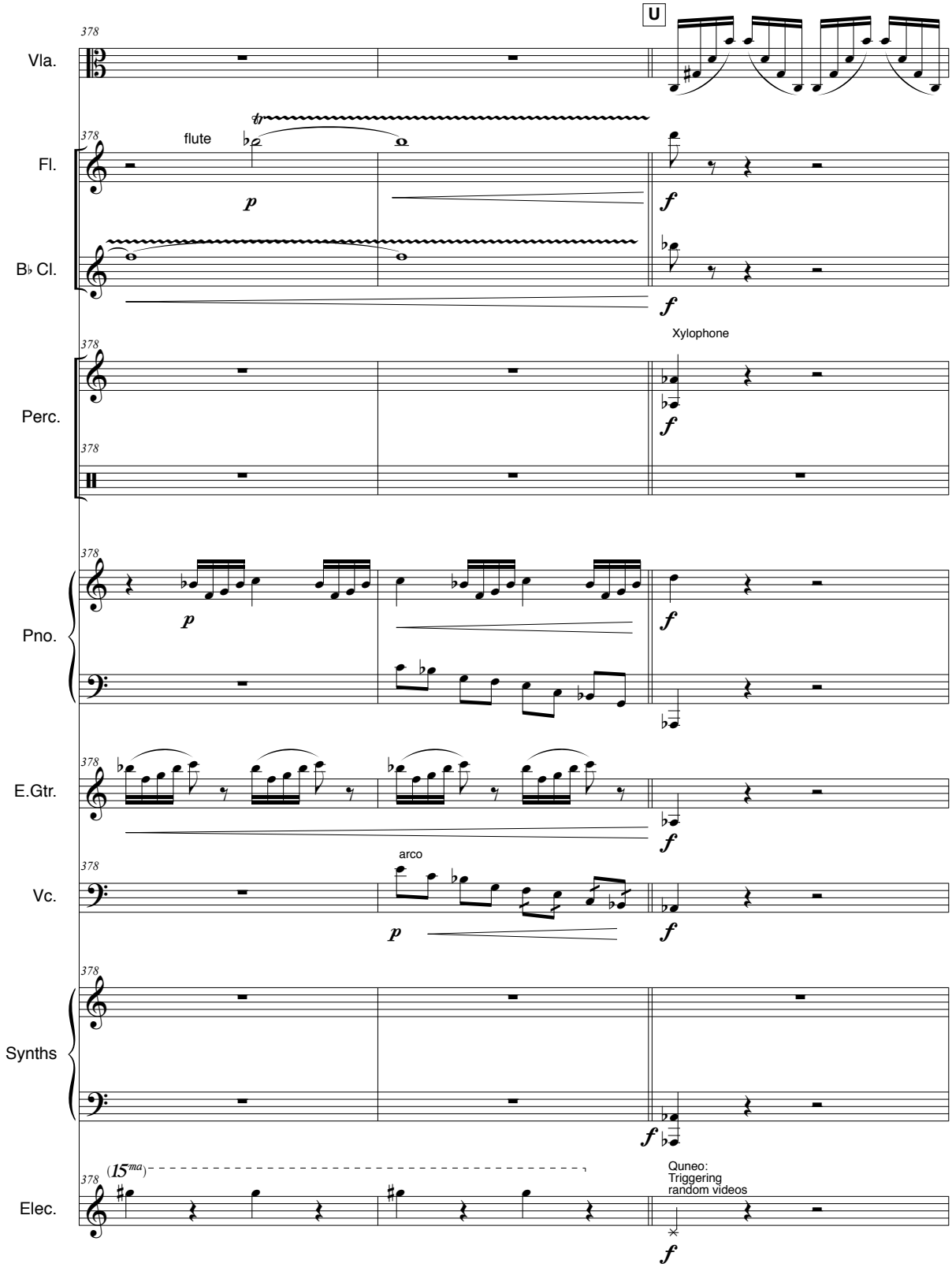

356
Vla.
p
f
p
Fl.
f
B♭ Cl.
Xylophone
Perc.
f
Pno.
E.Gtr.
pizz.
Vc.
Synths
8va
Elec.

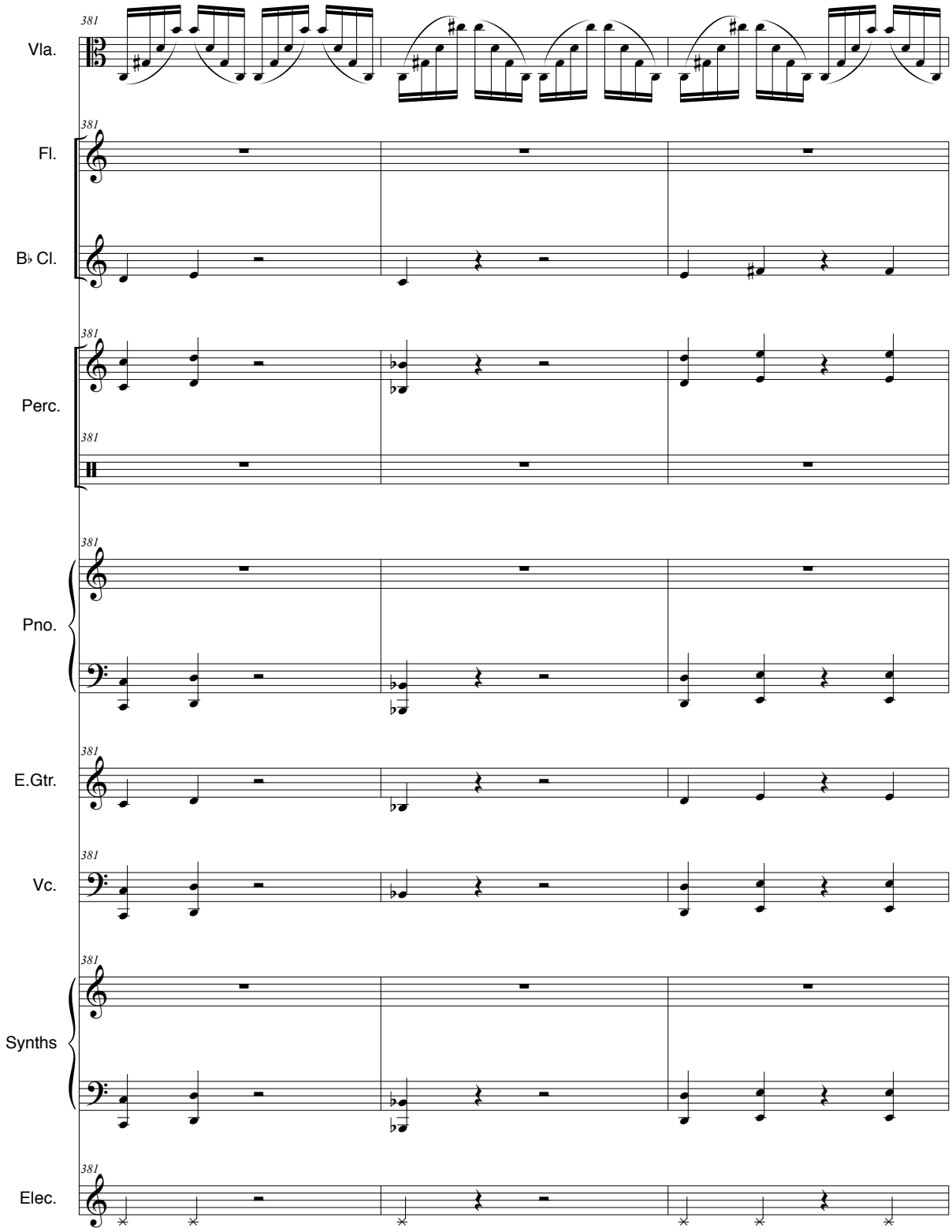

Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
Vibraphone
arco
Lead
360

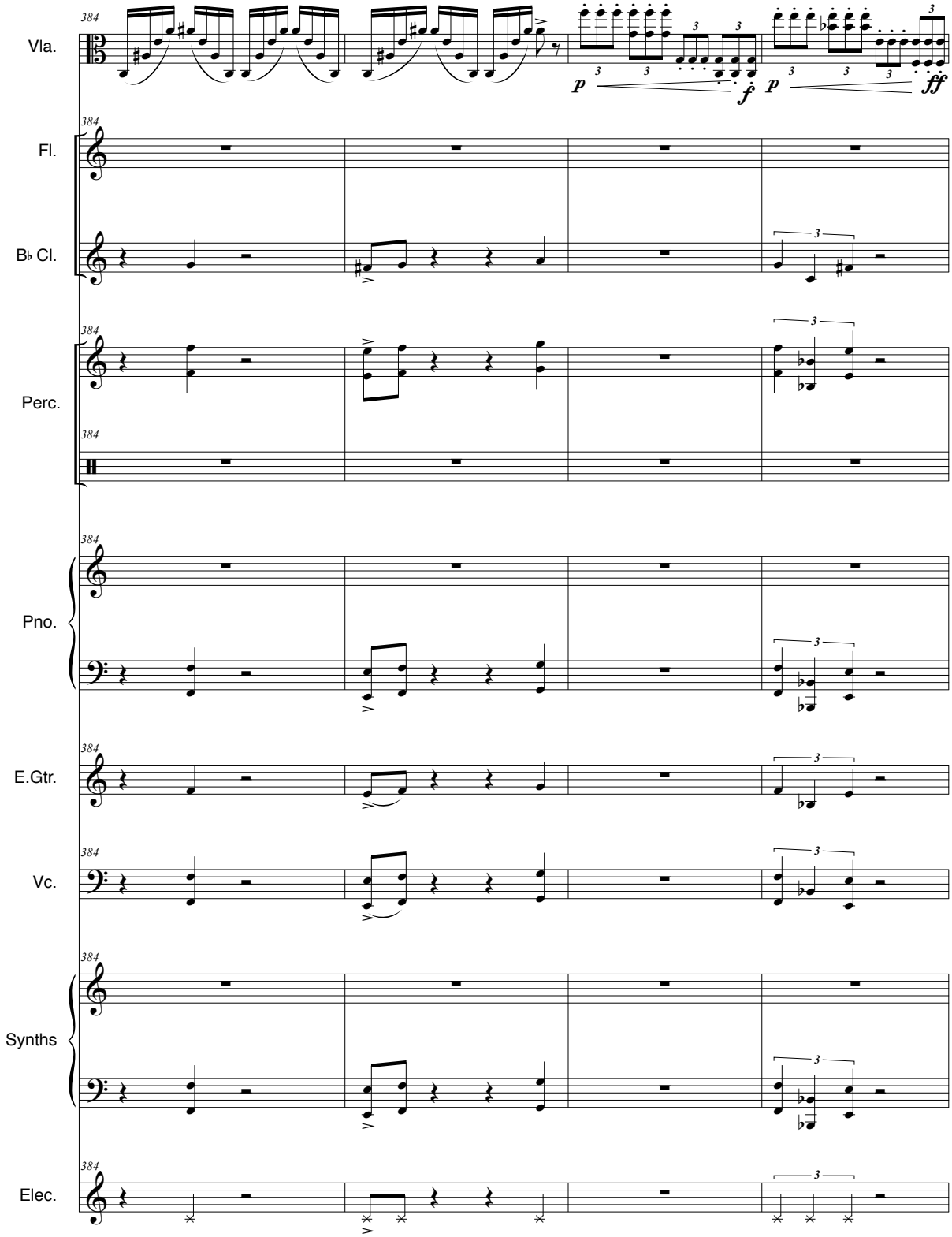

Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
364
pp
f
p
8va
(8va)

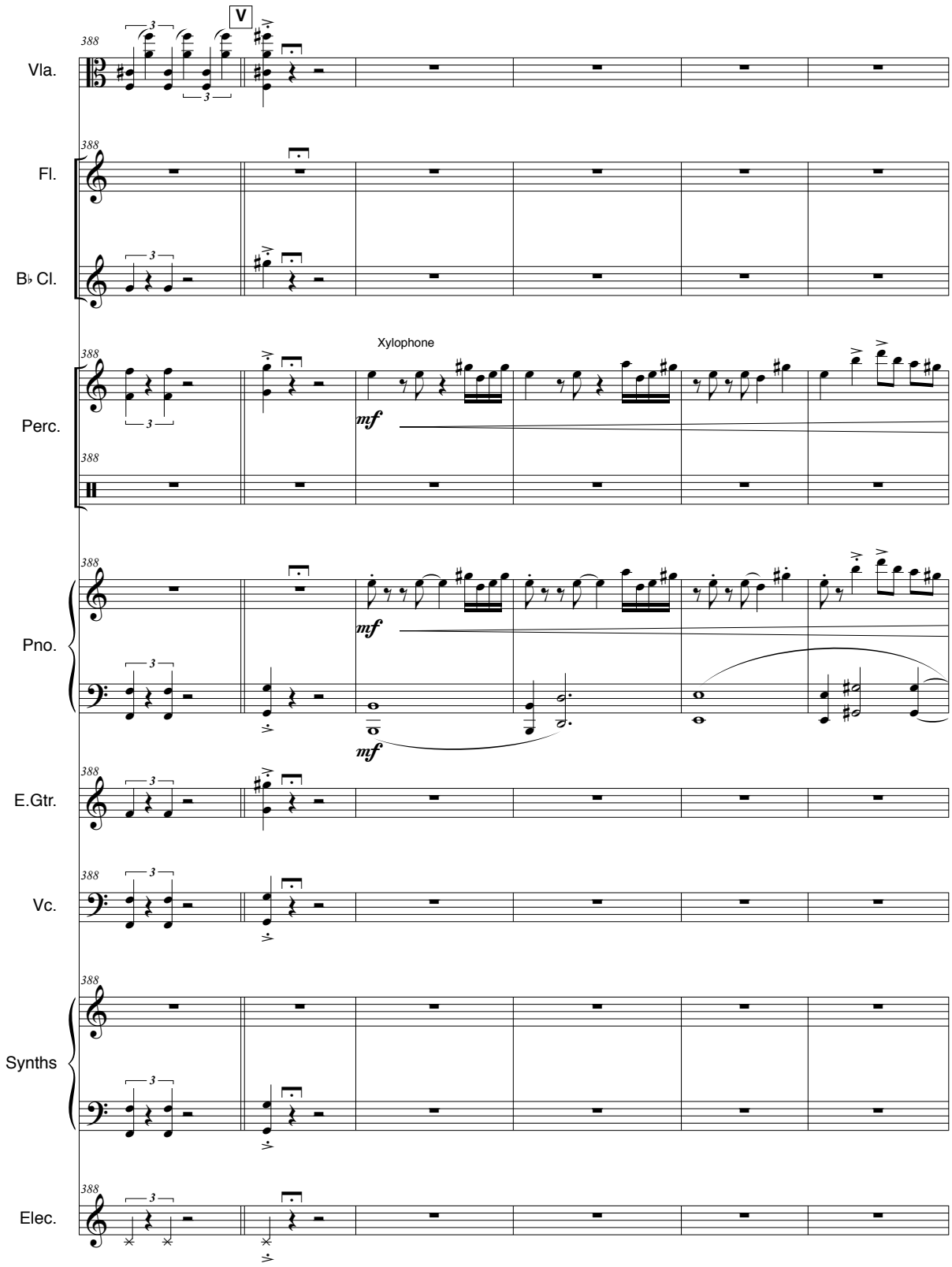

369
T
Vla.
Fl.
picc.
B♭ Cl.
f
Perc.
Vibraphone
(8va)
Pno.
E.Gtr.
P.M.
pizz.
Vc.
Synths
15ma
Elec.

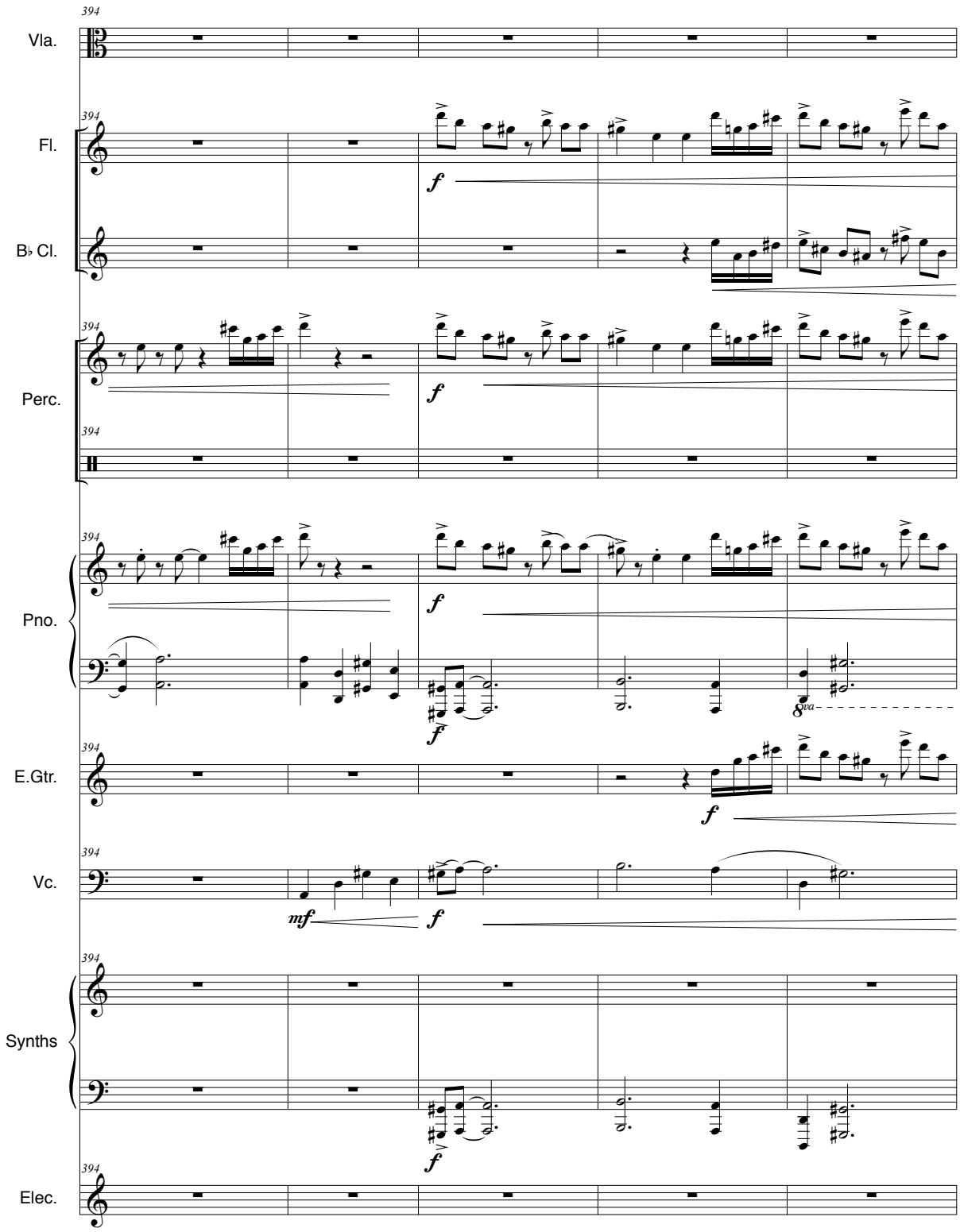

374
Vla.
Fl.
B♭ Cl.
tr
fp
Perc.
Pno.
E.Gtr.
p
Vc.
snap
Synths
(15ma)
Elec.

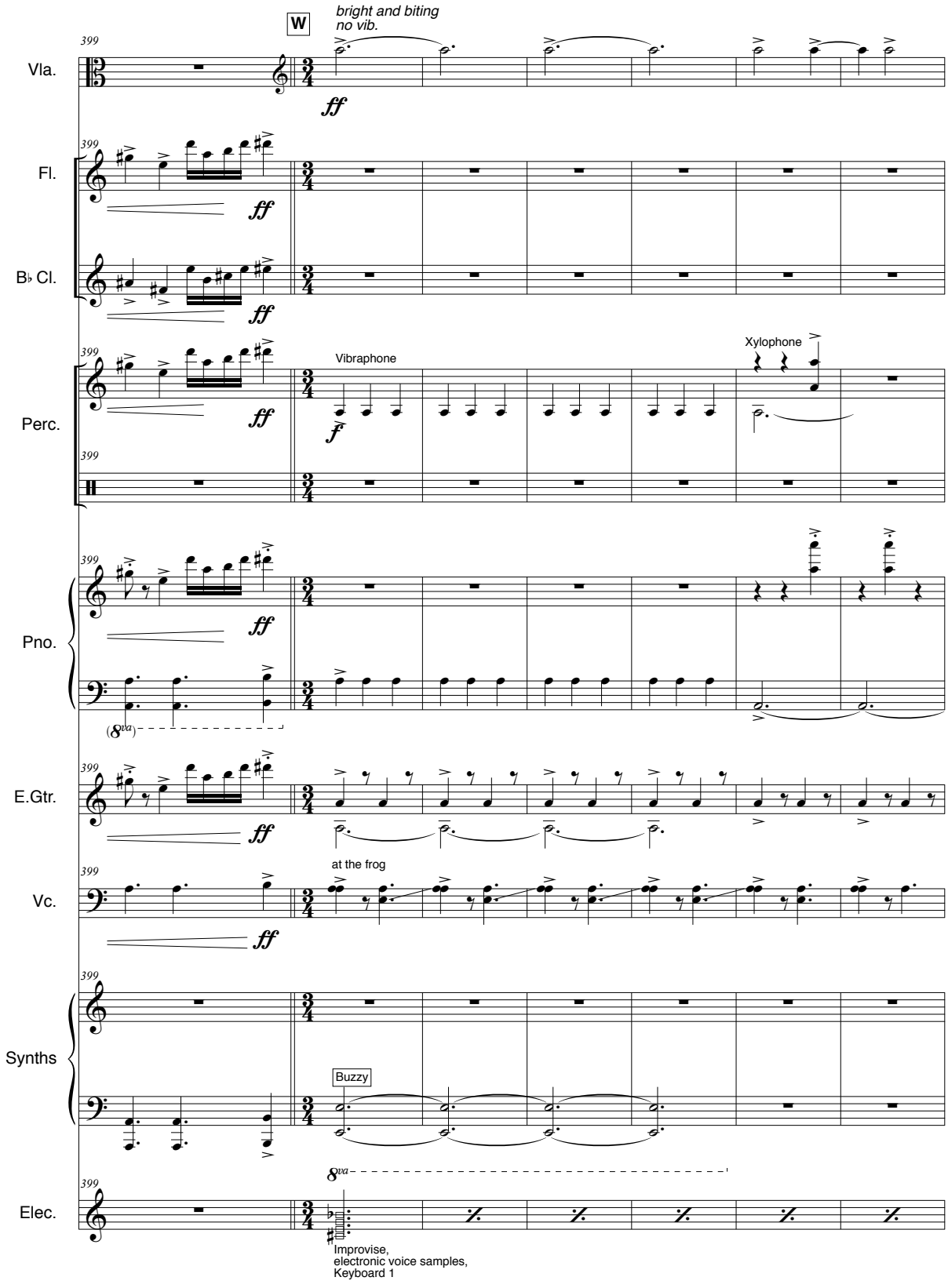

U
Vla.
Fl.
flute
B♭ Cl.
Perc.
Xylophone
Pno.
E.Gtr.
Vc.
arco
Synths
Elec.
(15ma)
Quneo:
Triggering
random videos

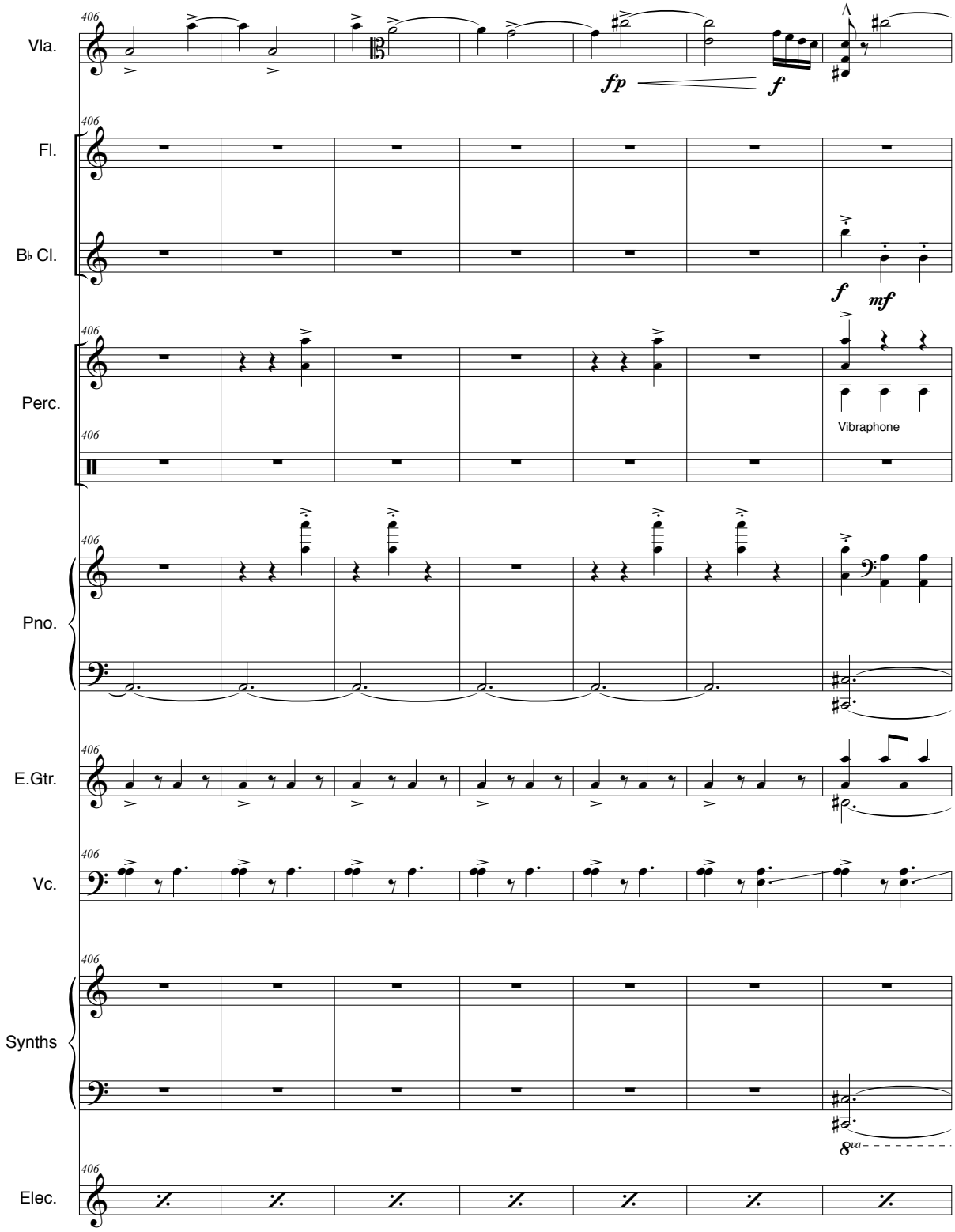

381
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.

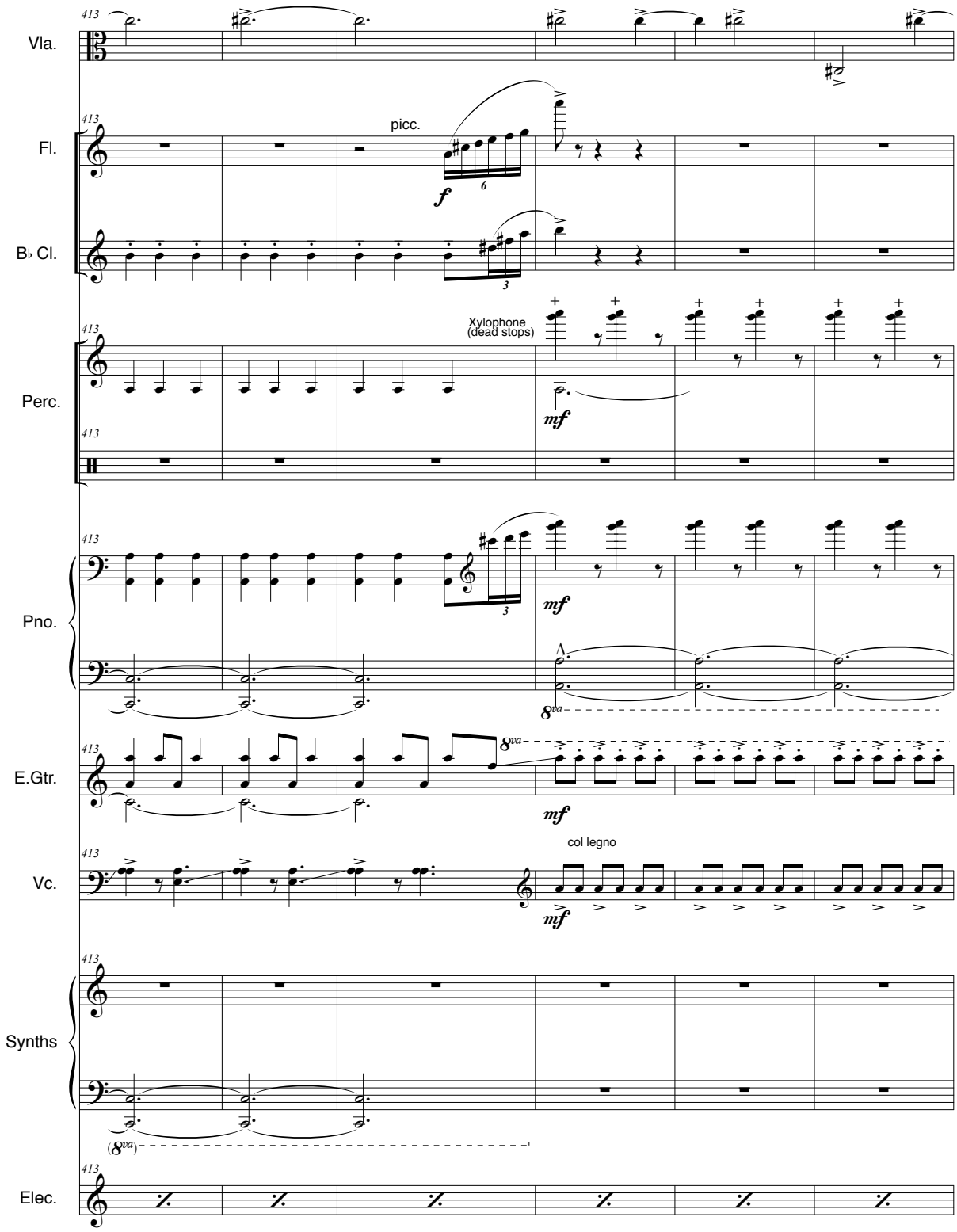

384
Vla.
p
f
p
ff
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.

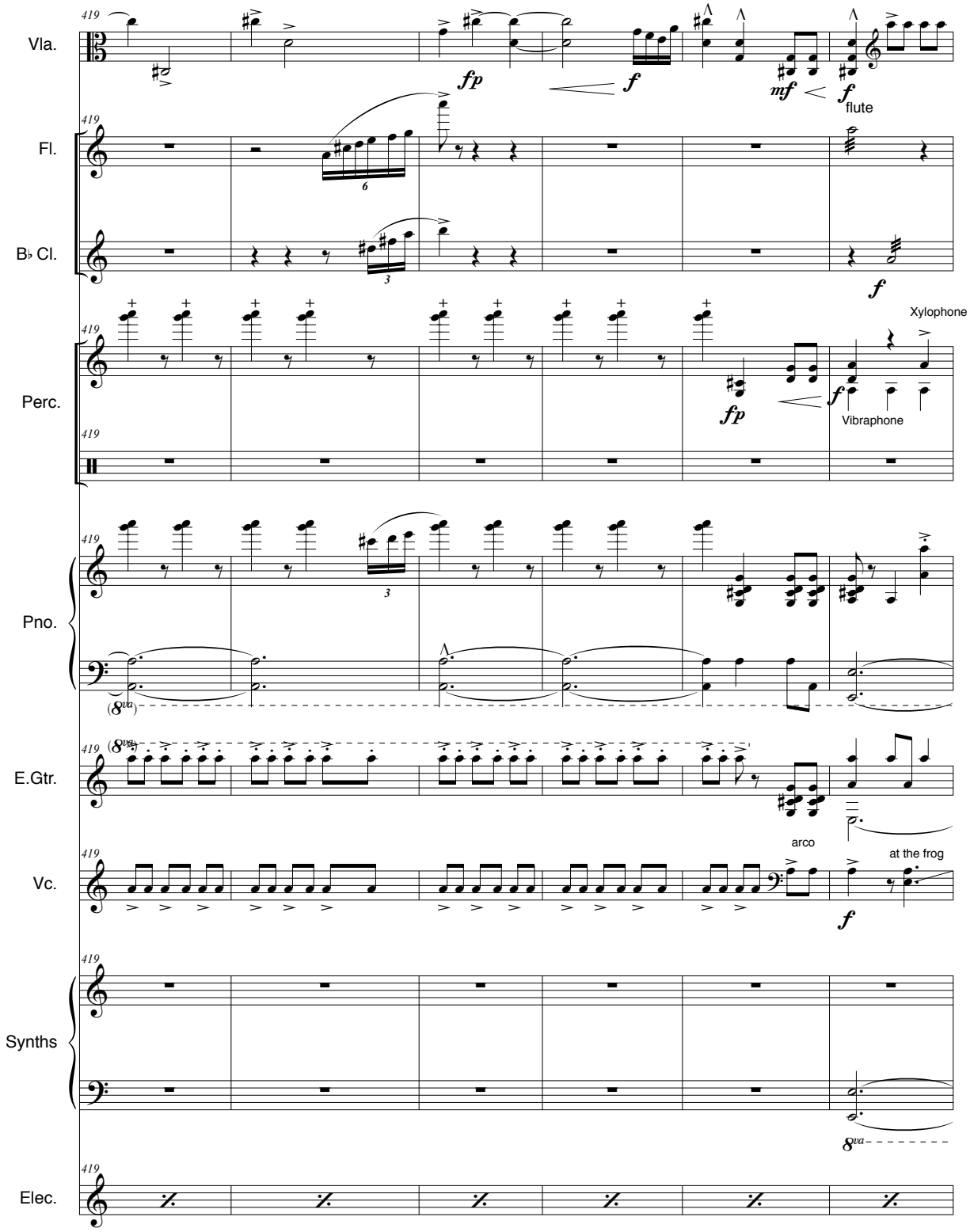

V
388
Vla.
Fl.
B♭ Cl.
Xylophone
Perc.
Pno.
mf
E.Gtr.
Vc.
Synths
Elec.

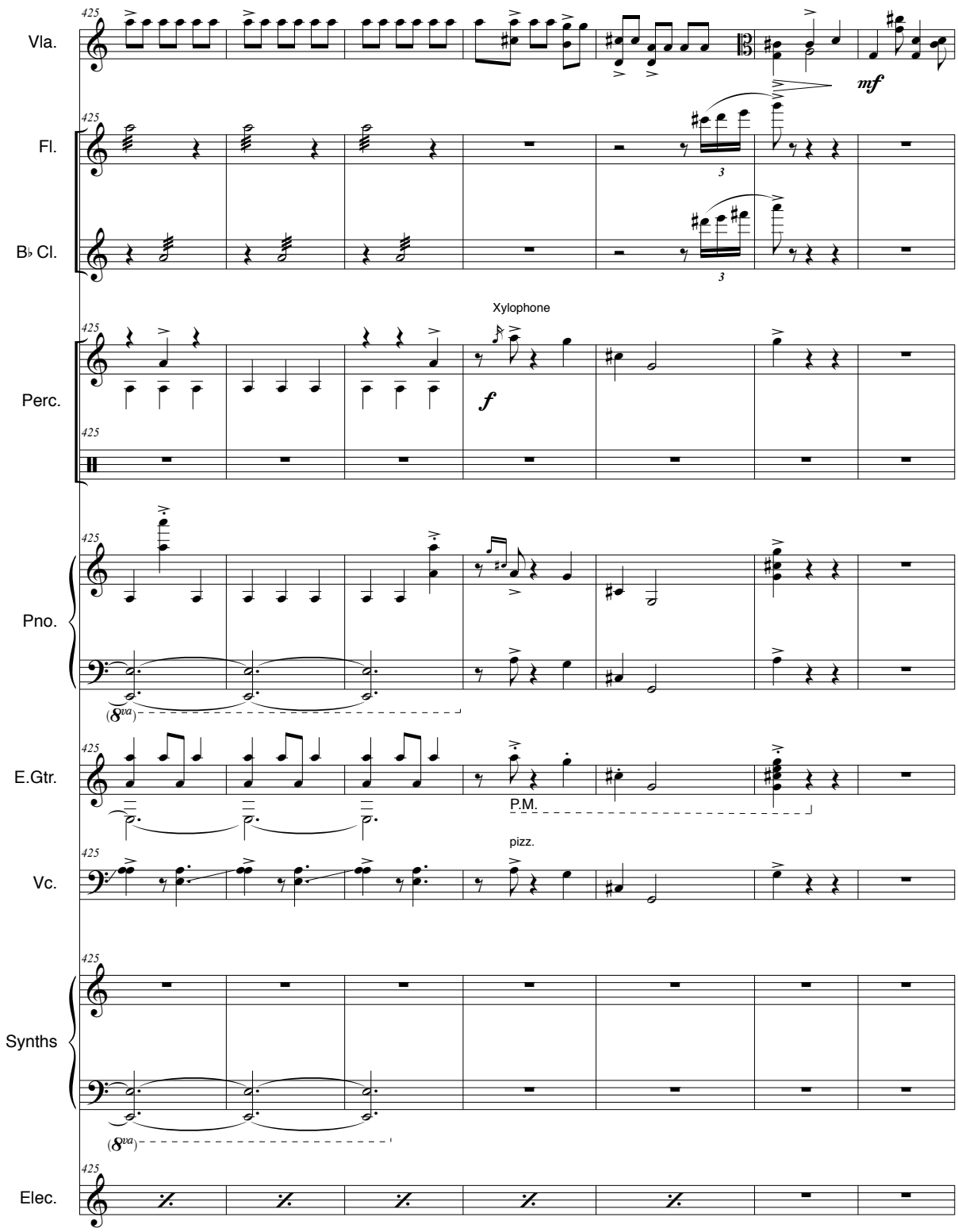

394
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
f
mf
8va

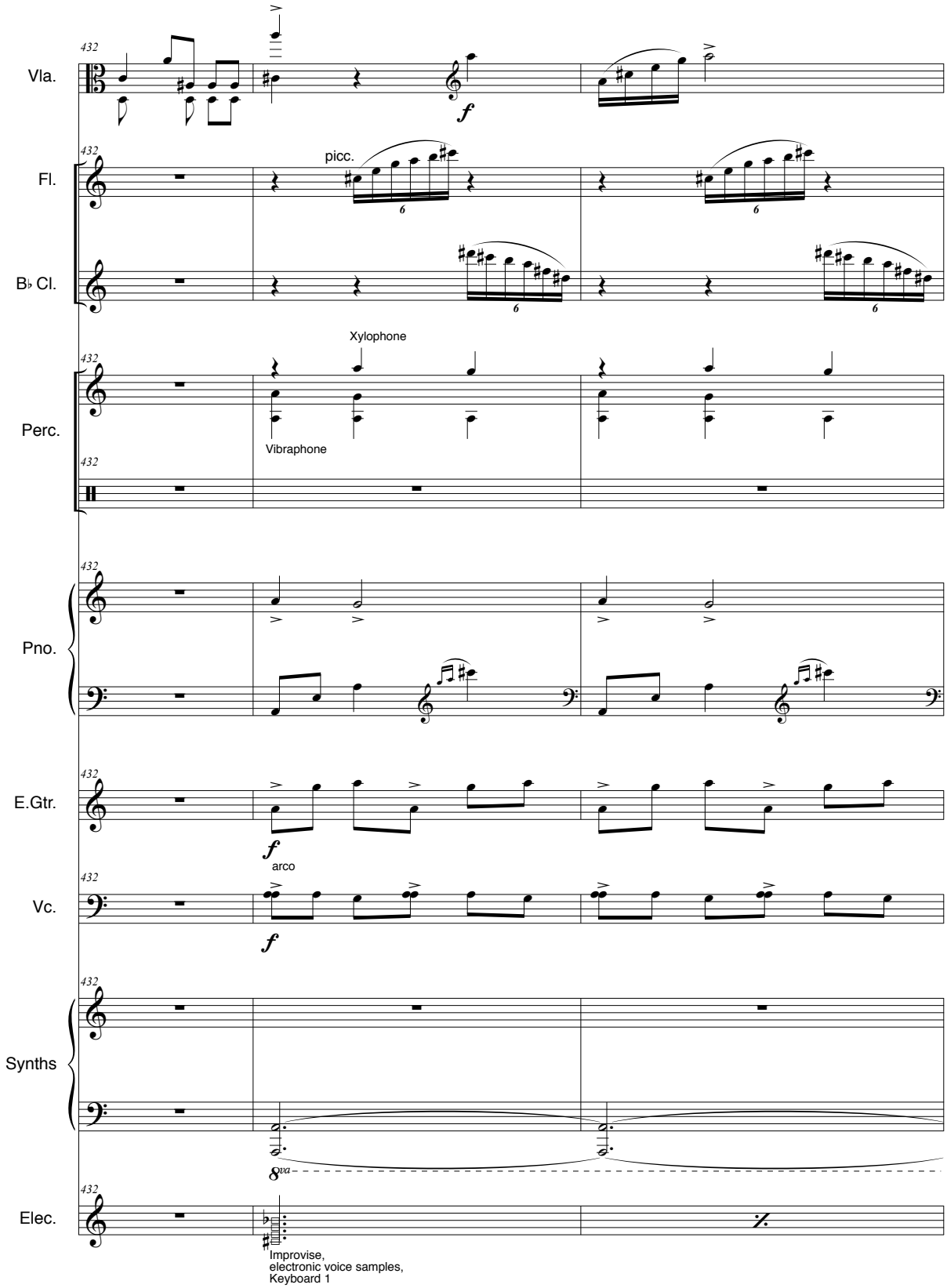

W
bright and biting
no vib.
399
Vla.
ff
Fl.
B♭ Cl.
Perc.
Vibraphone
f
Xylophone
Pno.
(8va)
E.Gtr.
Vc.
at the frog
Synths
Buzzy
8va
Elec.
Improvise,
electronic voice samples,
Keyboard 1

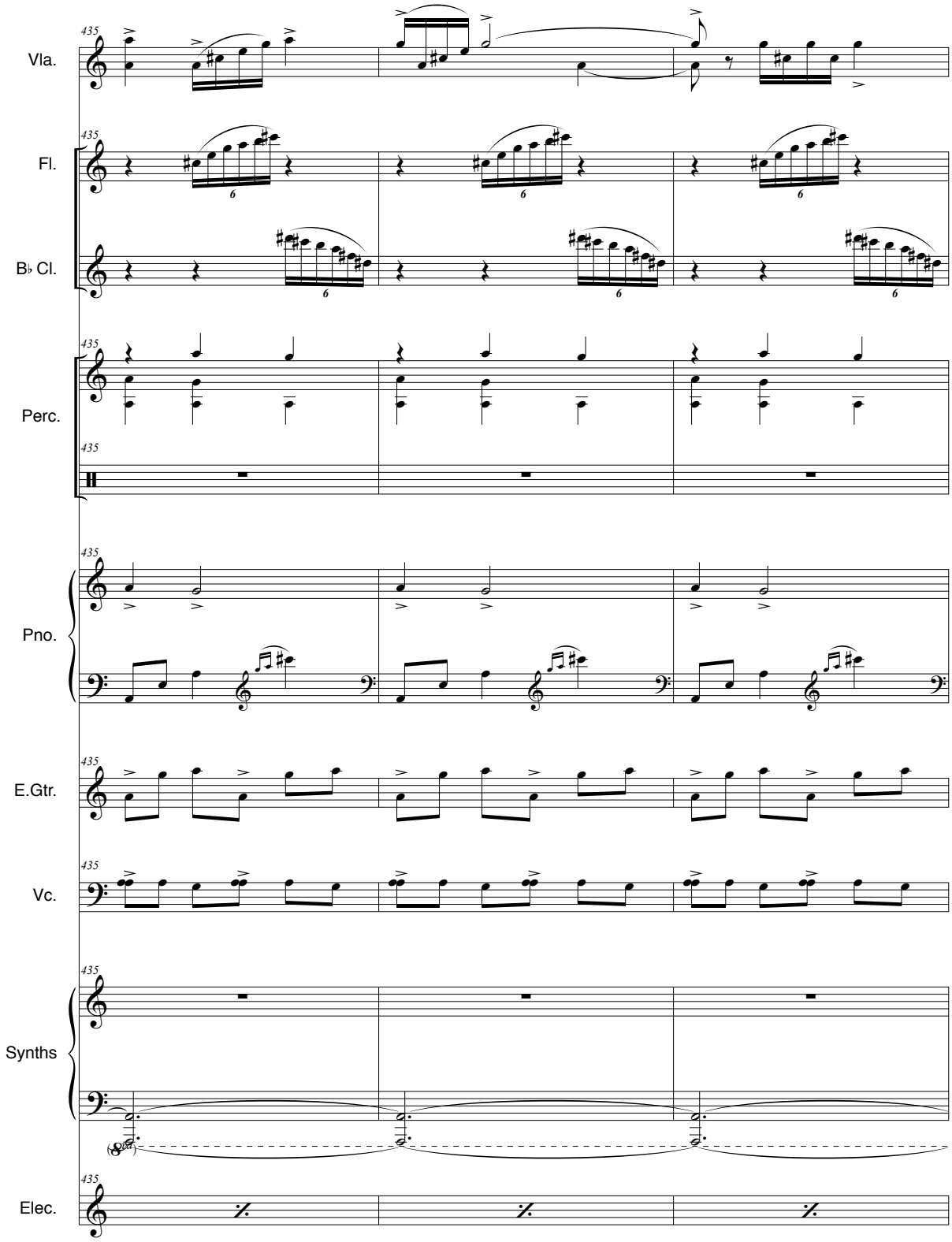

406
Vla.
fp
f
Fl.
B♭ Cl.
f
mf
Perc.
Vibraphone
Pno.
E.Gtr.
Vc.
Synths
8va
Elec.

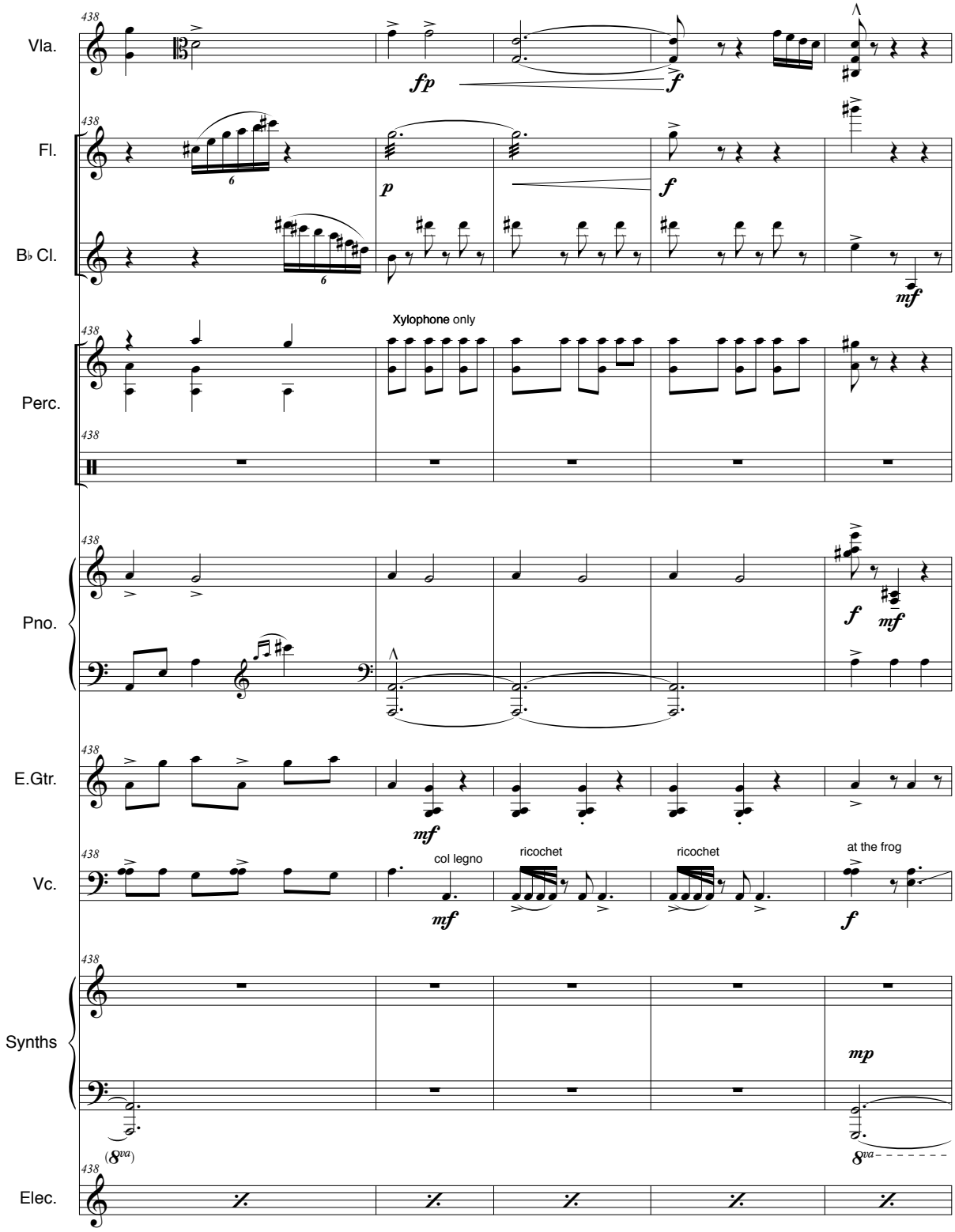

413
Vla.
Fl.
picc.
f
B♭ Cl.
Perc.
Xylophone
(dead stops)
mf
Pno.
8va
E.Gtr.
Vc.
col legno
Synths
(8va)
Elec.

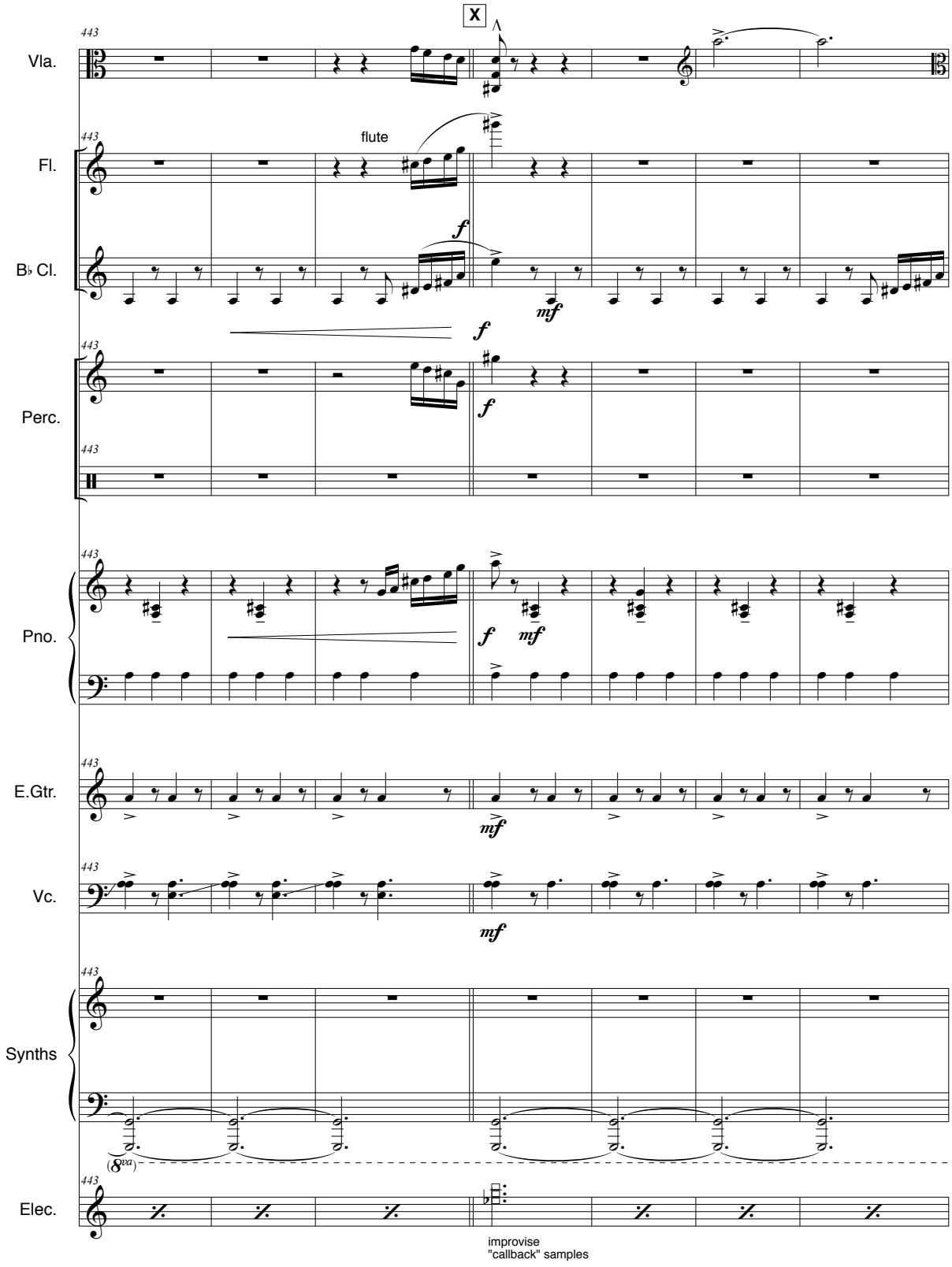

419
Vla.
fp
f
mf
f
flute
Fl.
B♭ Cl.
f
Perc.
Xylophone
fp
f
Vibraphone
Pno.
8va
E.Gtr.
8va
Vc.
arco
at the frog
f
Synths
8va
Elec.

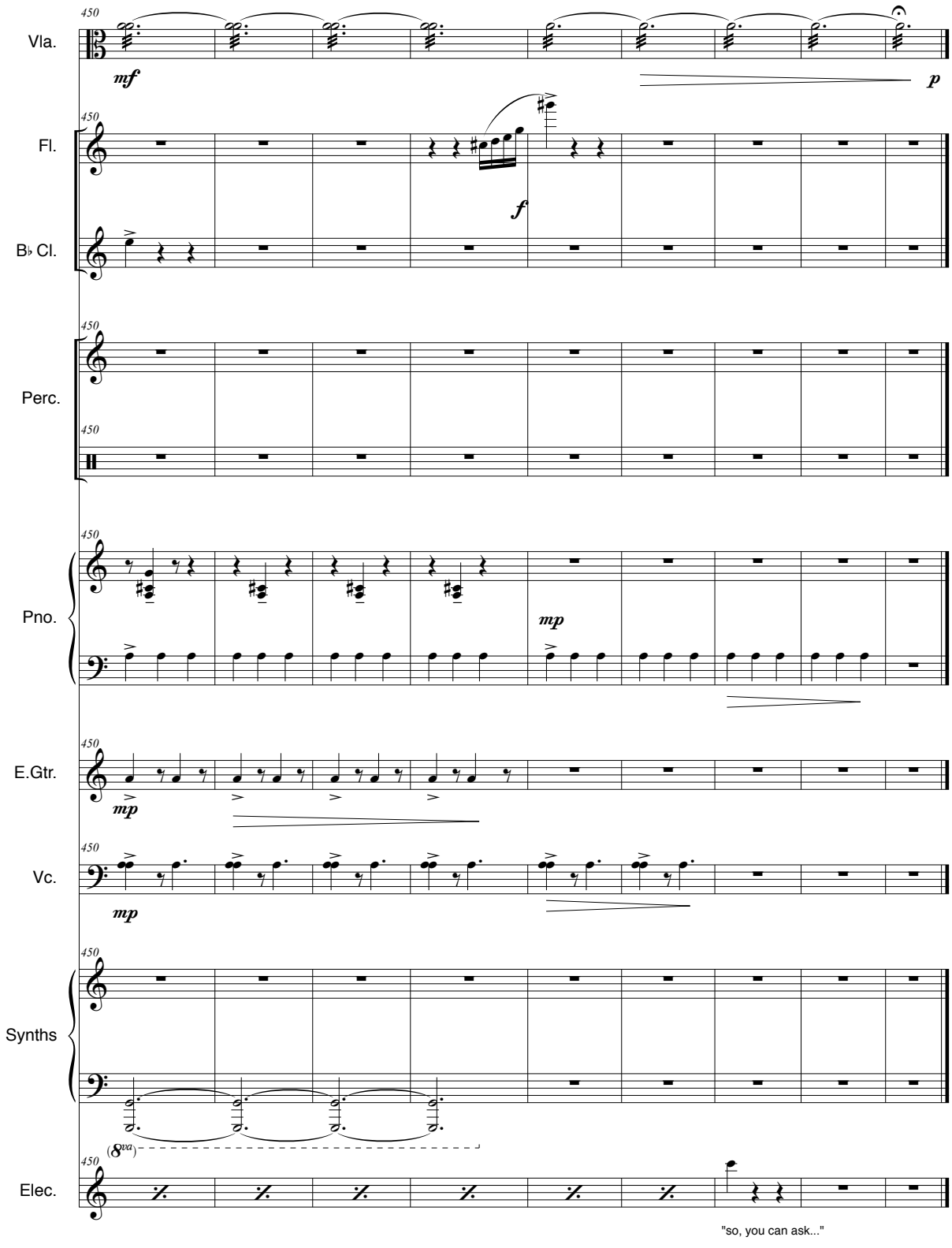

425
Vla.
mf
Fl.
3
B♭ Cl.
3
Xylophone
Perc.
f
Pno.
(8va)
E.Gtr.
P.M.
pizz.
Vc.
Synths
(8va)
Elec.


Vla.
Fl.
picc.
B♭ Cl.
Perc.
Xylophone
Vibraphone
Pno.
E.Gtr.
arco
Vc.
Synths
8va
Elec.
Improvise,
electronic voice samples,
Keyboard 1


435
Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.


Vla.
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
Elec.
438
fp
f
p
mf
Xylophone only
col legno
ricochet
ricochet
at the frog
mp
(8va)
8va


X
443
Vla.
flute
Fl.
B♭ Cl.
Perc.
Pno.
E.Gtr.
Vc.
Synths
(8va)
Elec.
improvise
"callback" samples


450
Vla.
mf
p
Fl.
B♭ Cl.
f
Perc.
Pno.
mp
E.Gtr.
Vc.
Synths
(8va)
Elec.
"so, you can ask..."

IF IT STOPS (2015)

for flute, clarinet, piano, percussion, viola, bass, and live electronics

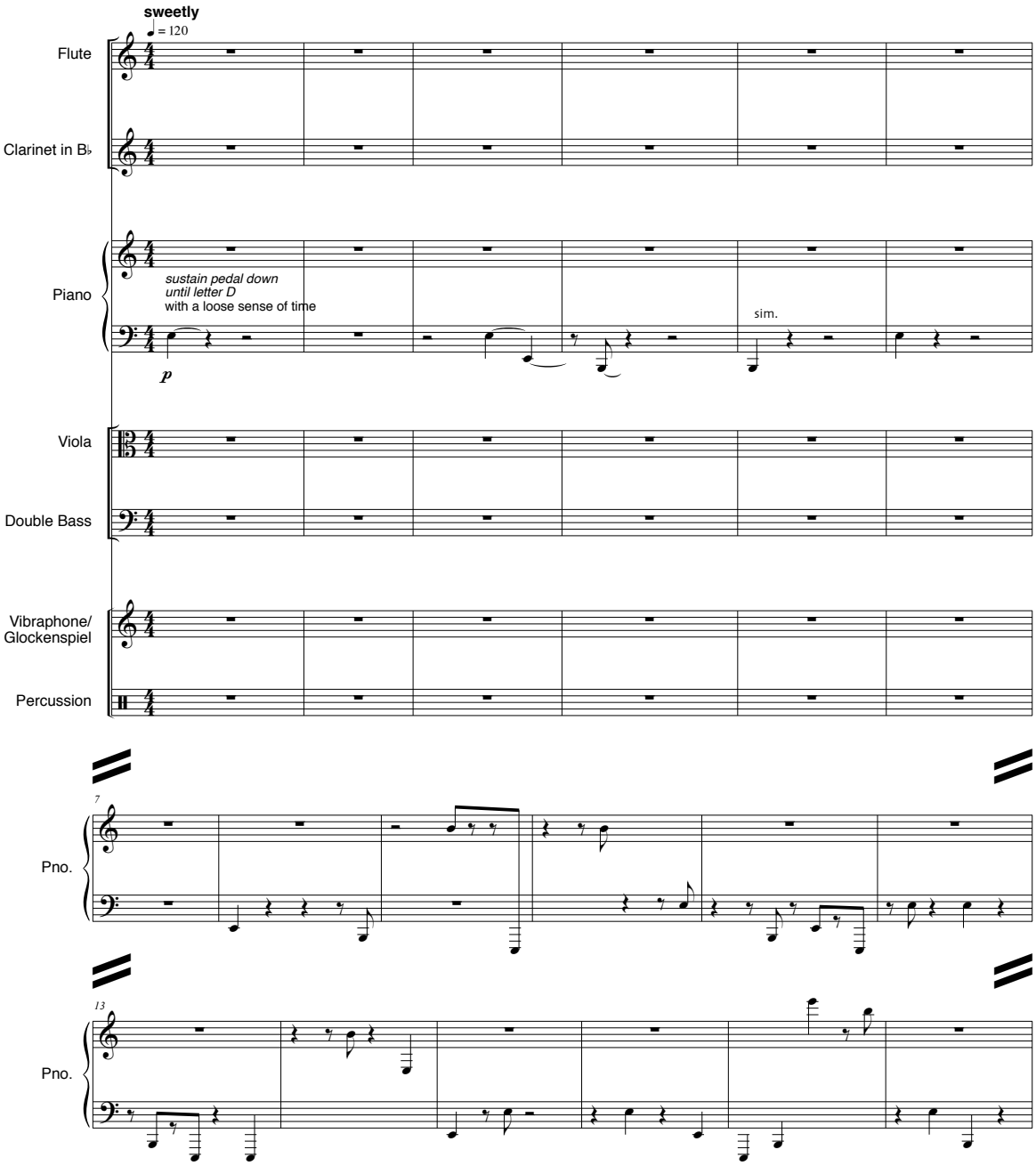
Premiered April 3rd, 2015 by the Now Hear Ensemble at Lotte Lehmann Concert Hall, University of California, Santa Barbara

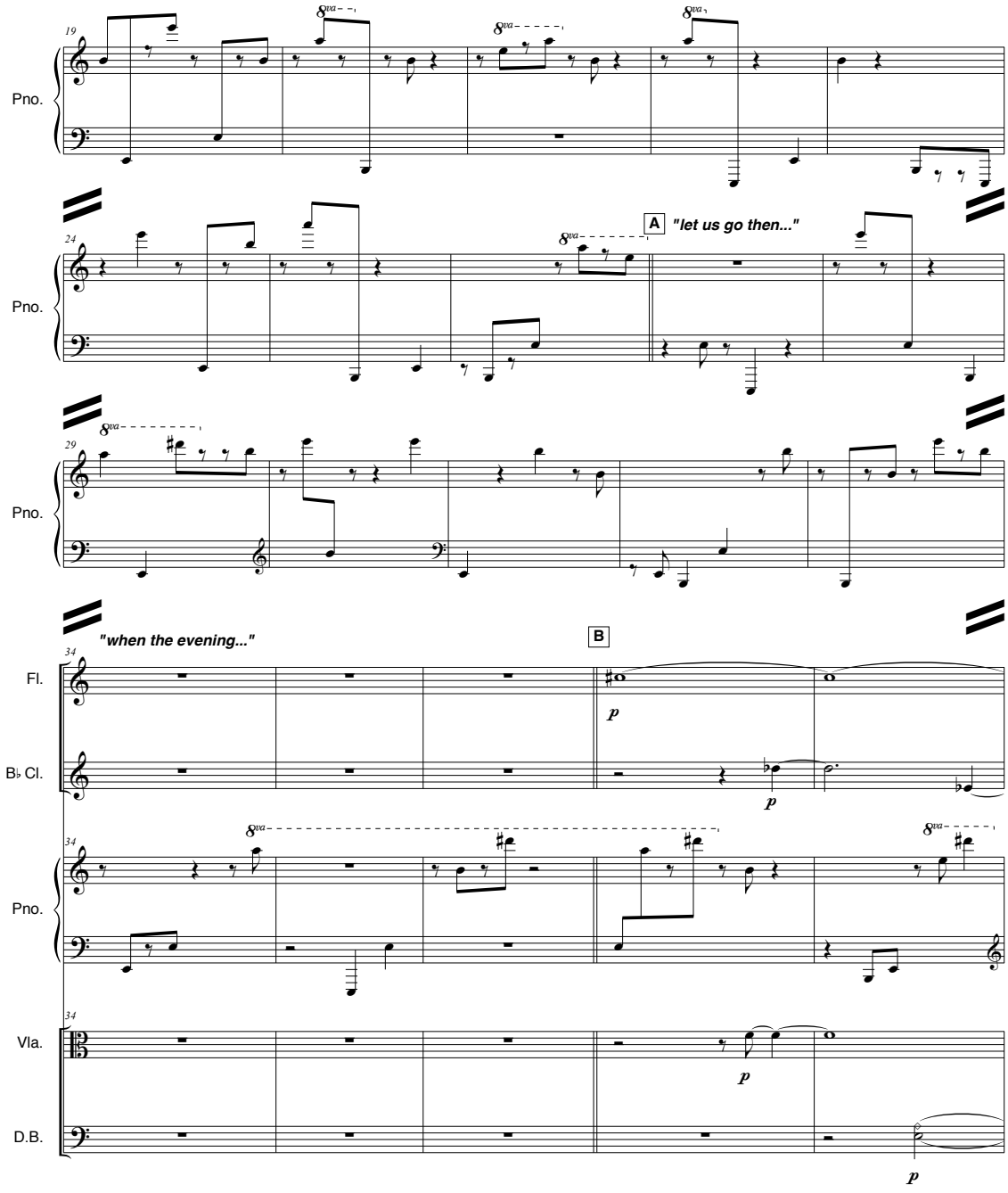
Score

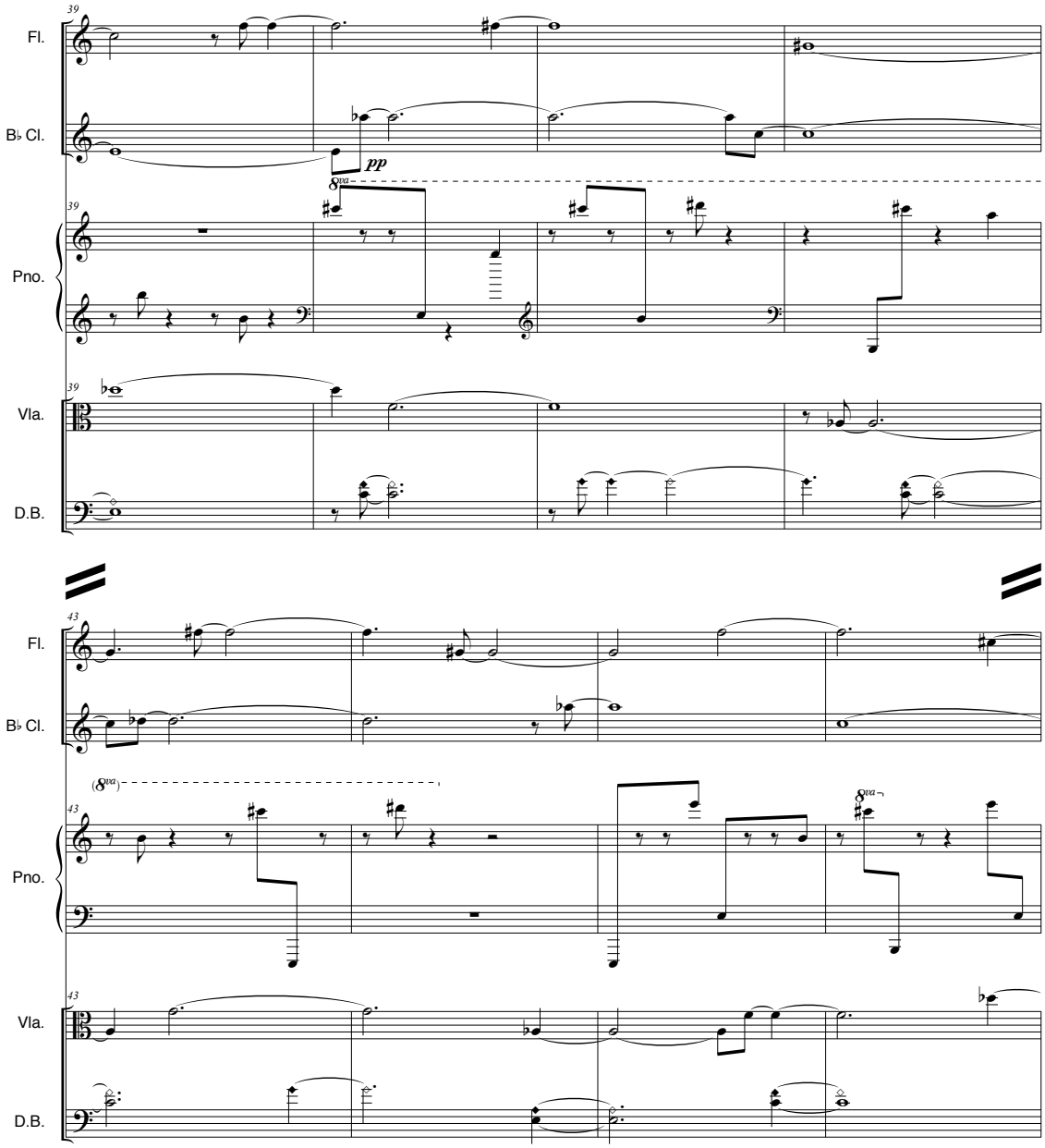
if it stops

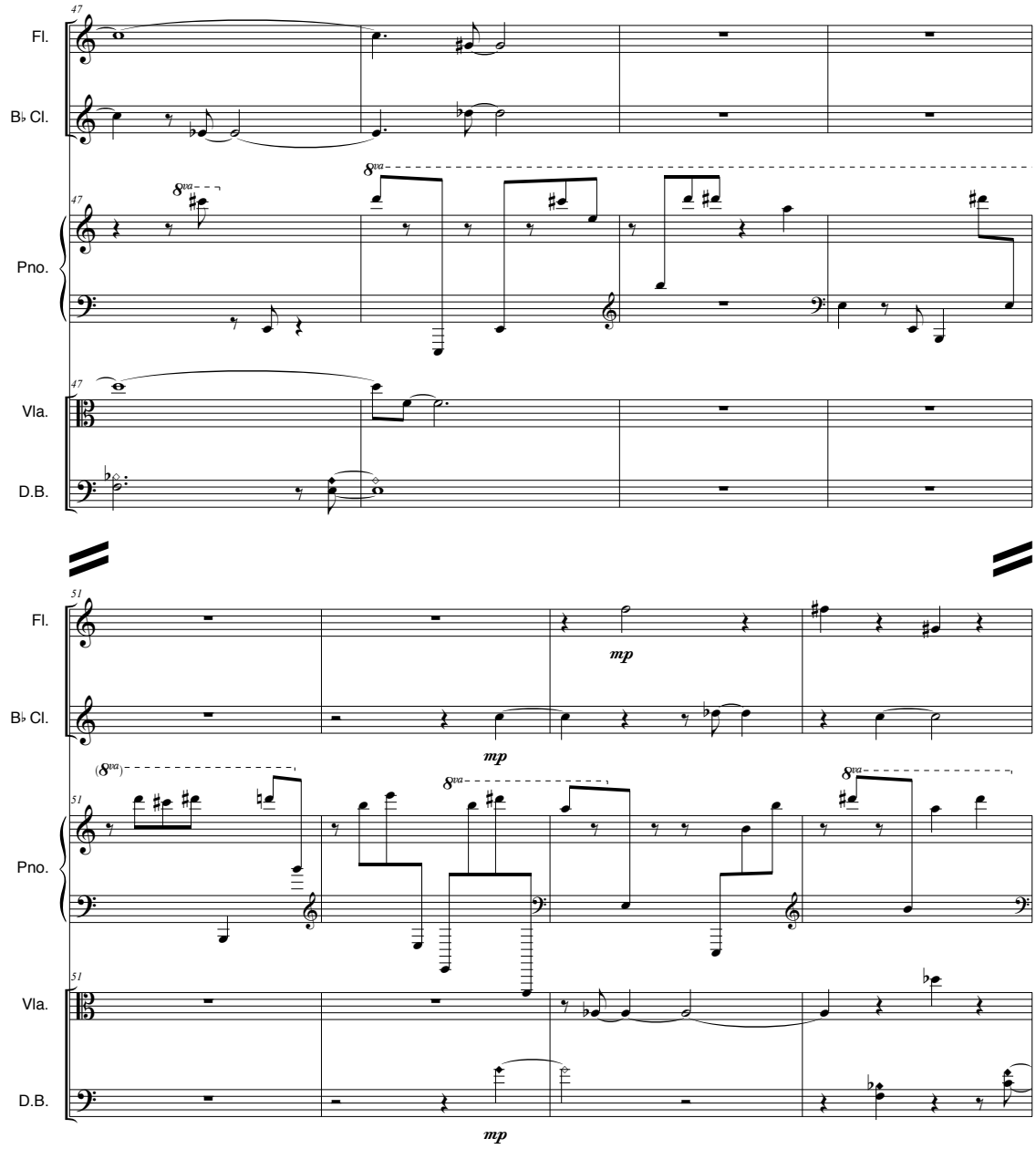
for the Now Hear Ensemble

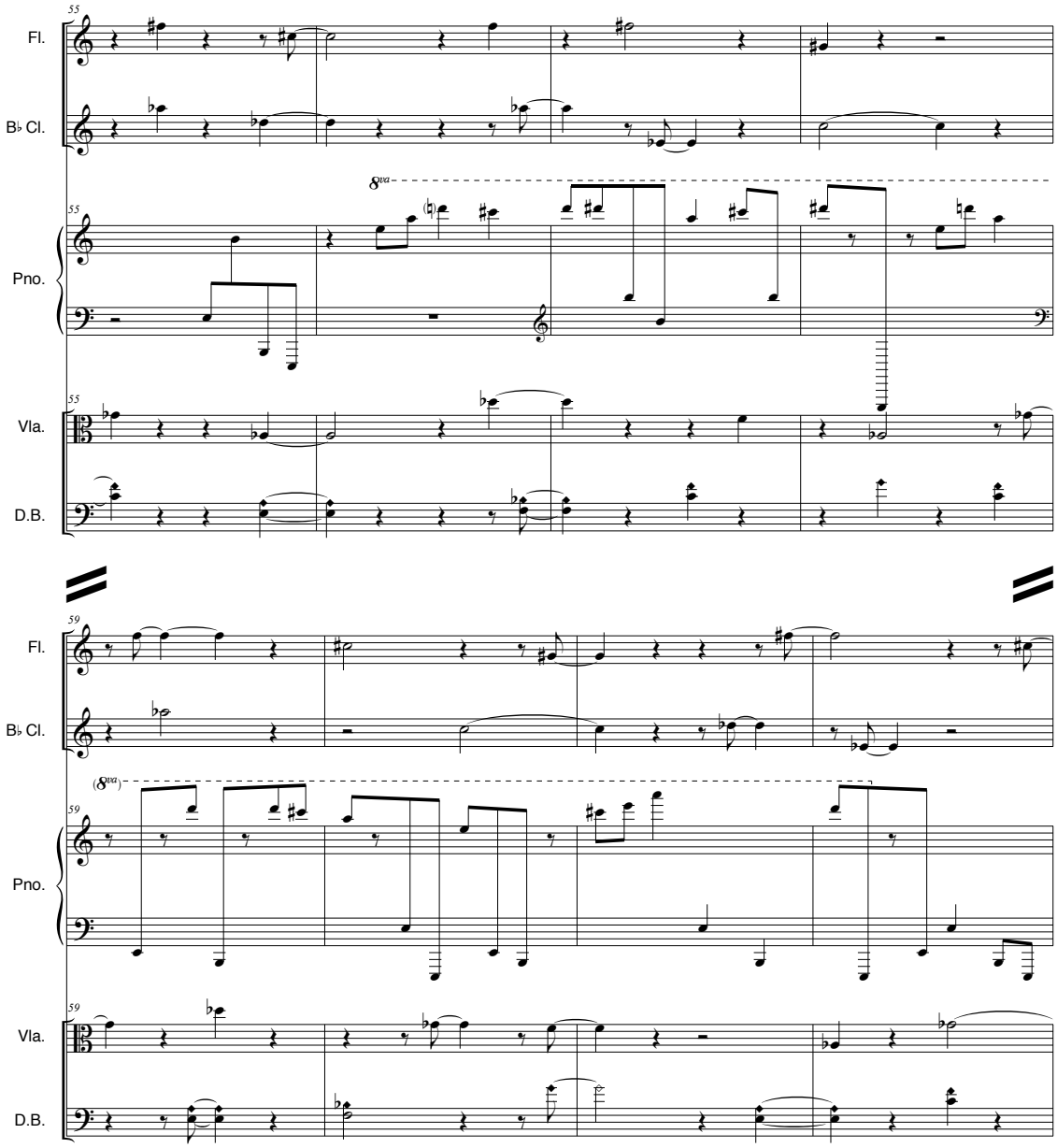
Anthony Paul Garcia

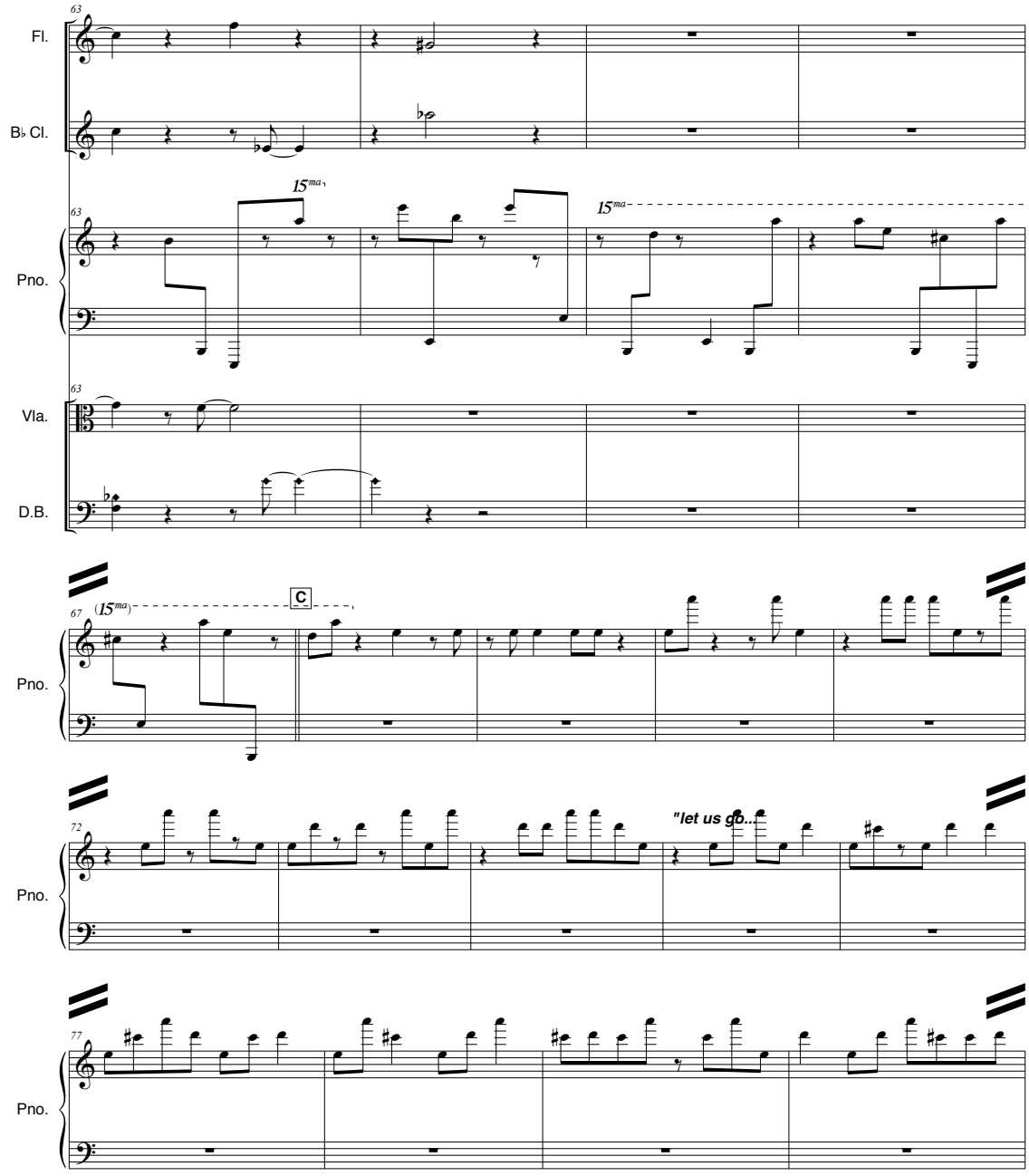


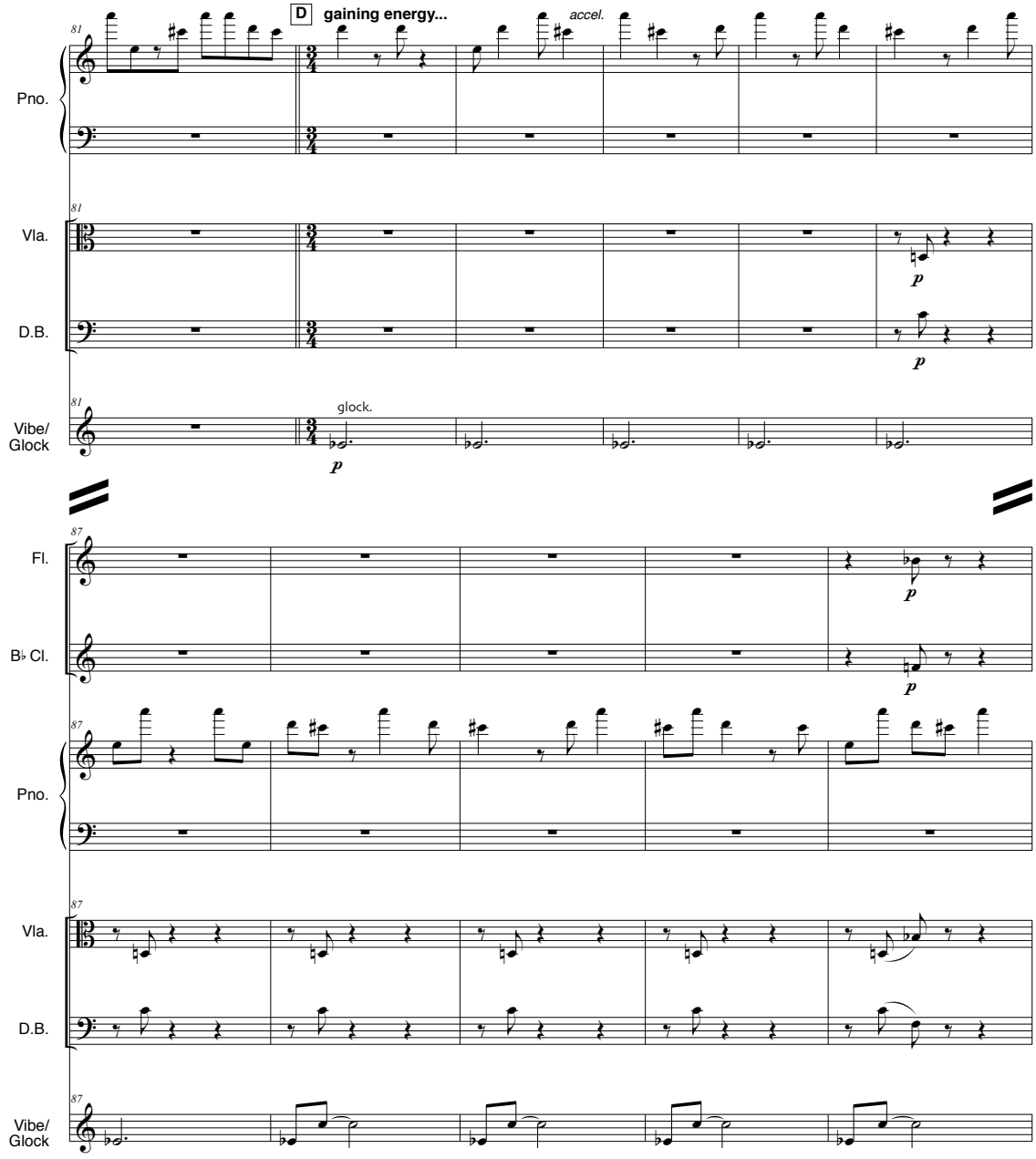

19
Pno.
8va
24
Pno.
A
"let us go then..."
29
Pno.
"when the evening..."
B
34
Fl.
B♭ Cl.
Pno.
Vla.
D.B.
p

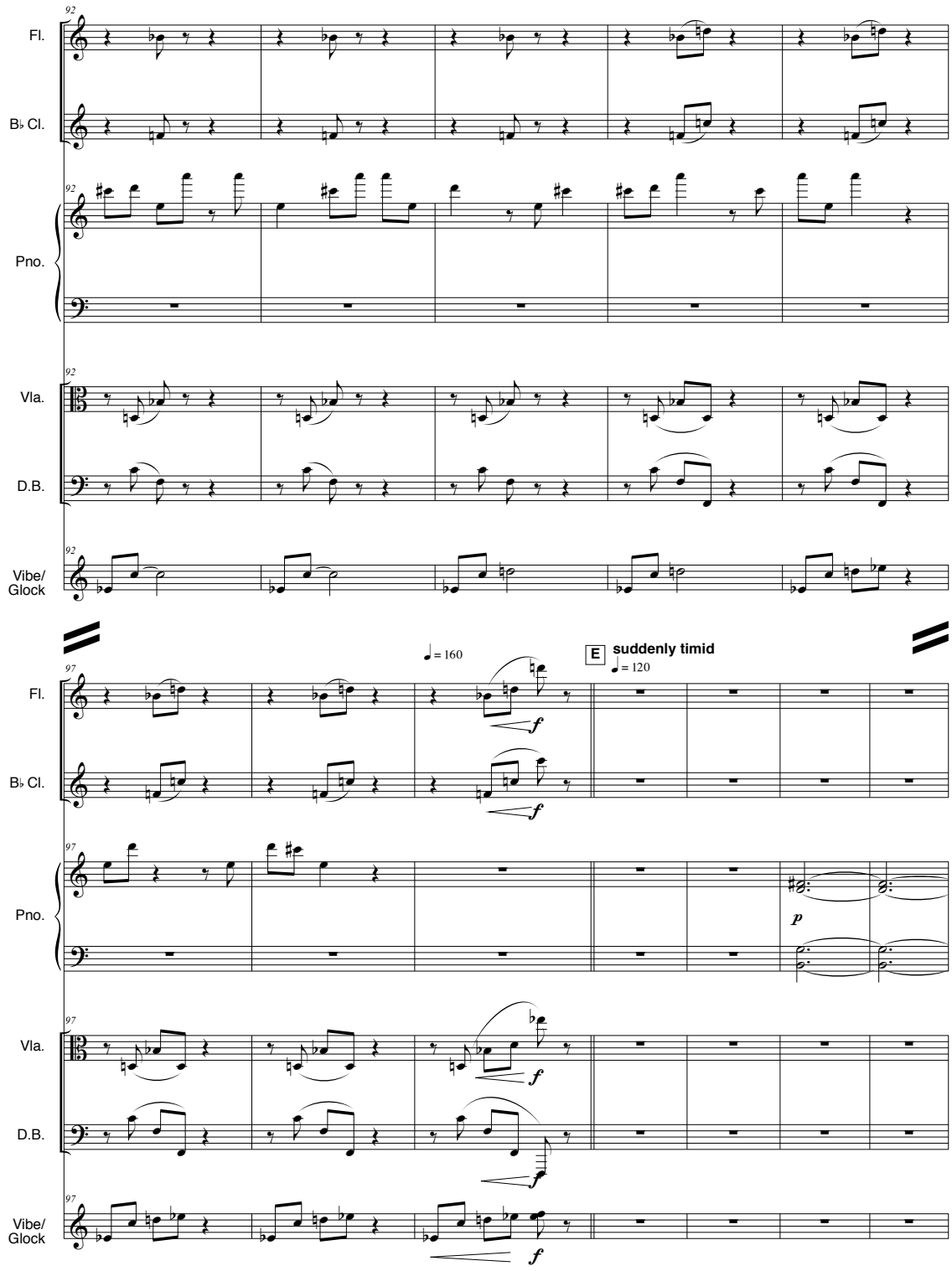

39
Fl.
B♭ Cl.
pp
8va
39
Pno.
39
Vla.
D.B.
43
Fl.
B♭ Cl.
(8va)
8va
43
Pno.
43
Vla.
D.B.

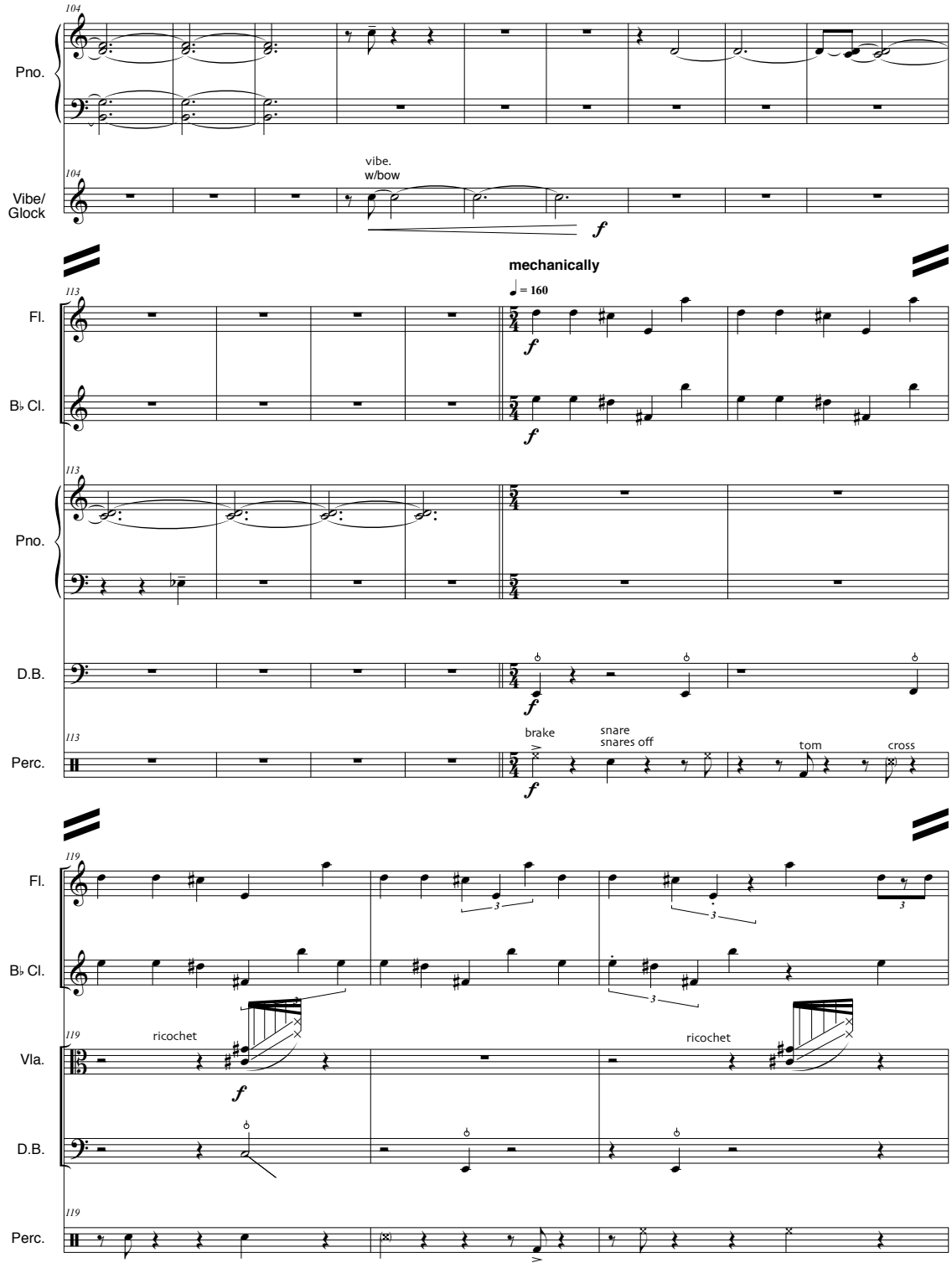

47
Fl.
B♭ Cl.
8va
47
Pno.
47
Vla.
D.B.
51
Fl.
mp
B♭ Cl.
mp
(8va)
8va
8va
51
Pno.
51
Vla.
D.B.
mp

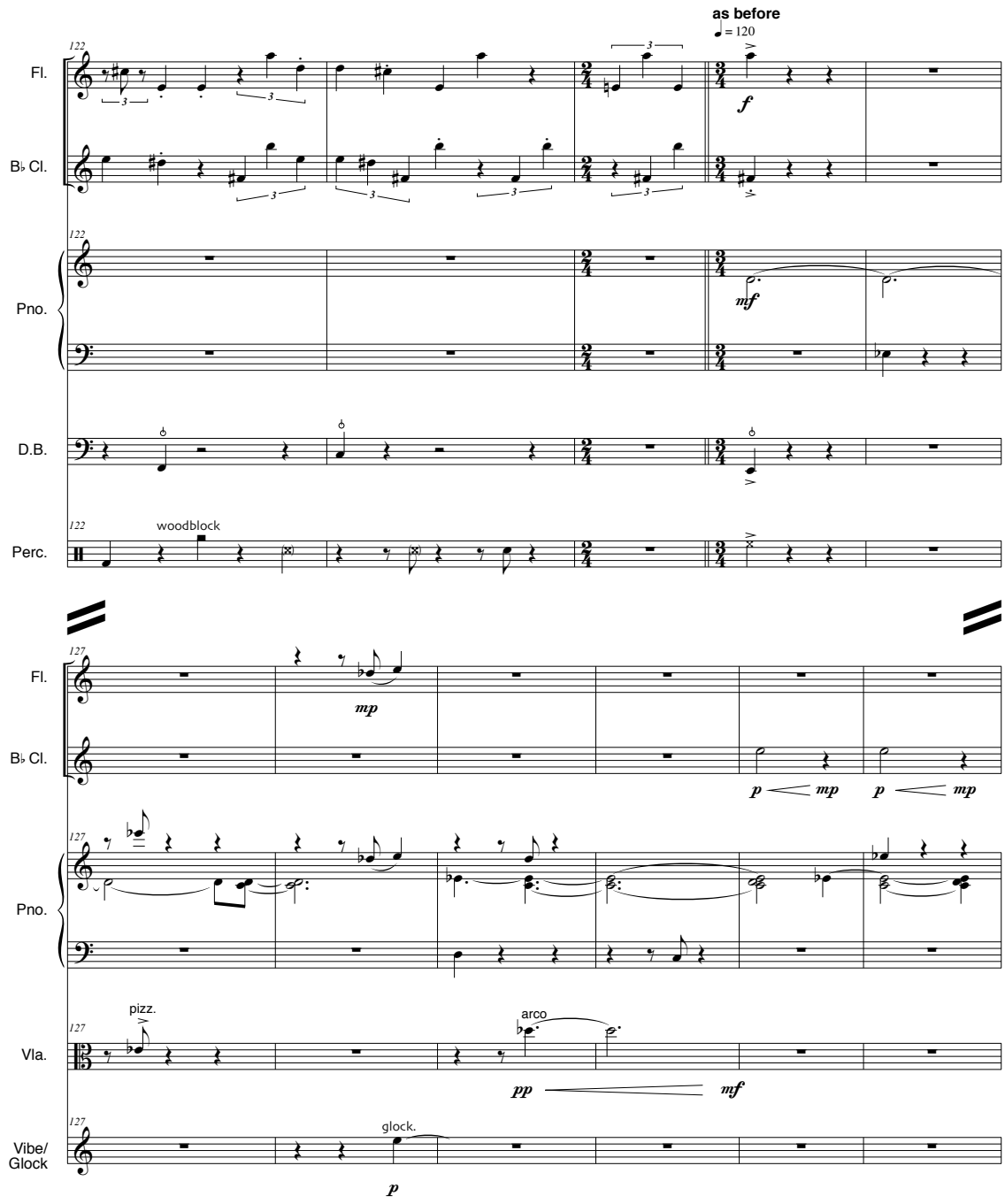

55
Fl.
B♭ Cl.
8va
Pno.
Vla.
D.B.
59
(8va)

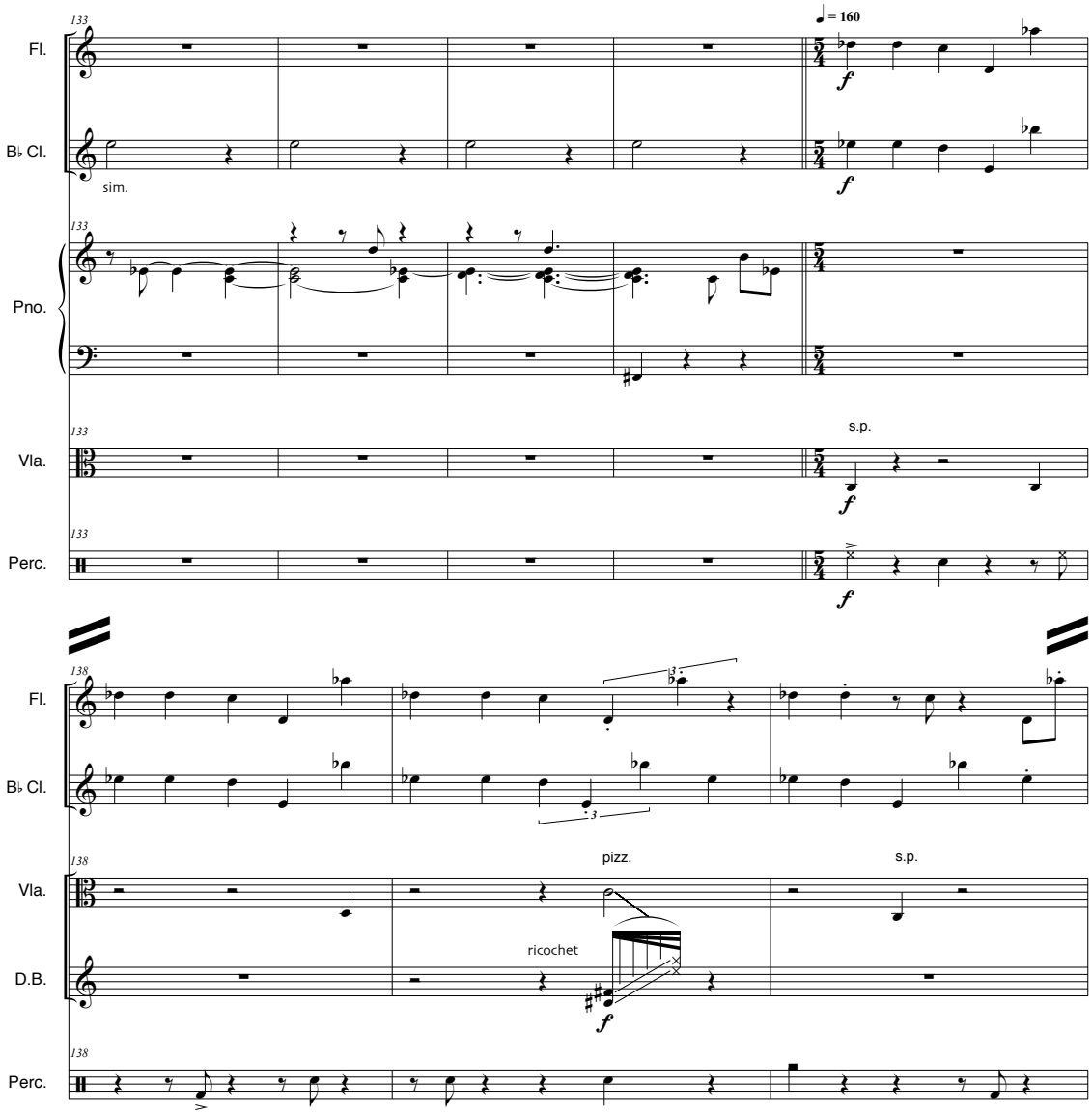

63
Fl.
B♭ Cl.
63
15ma
15ma
Pno.
63
Vla.
D.B.
67
(15ma)
C
Pno.
72
"let us go..."
Pno.
77
Pno.

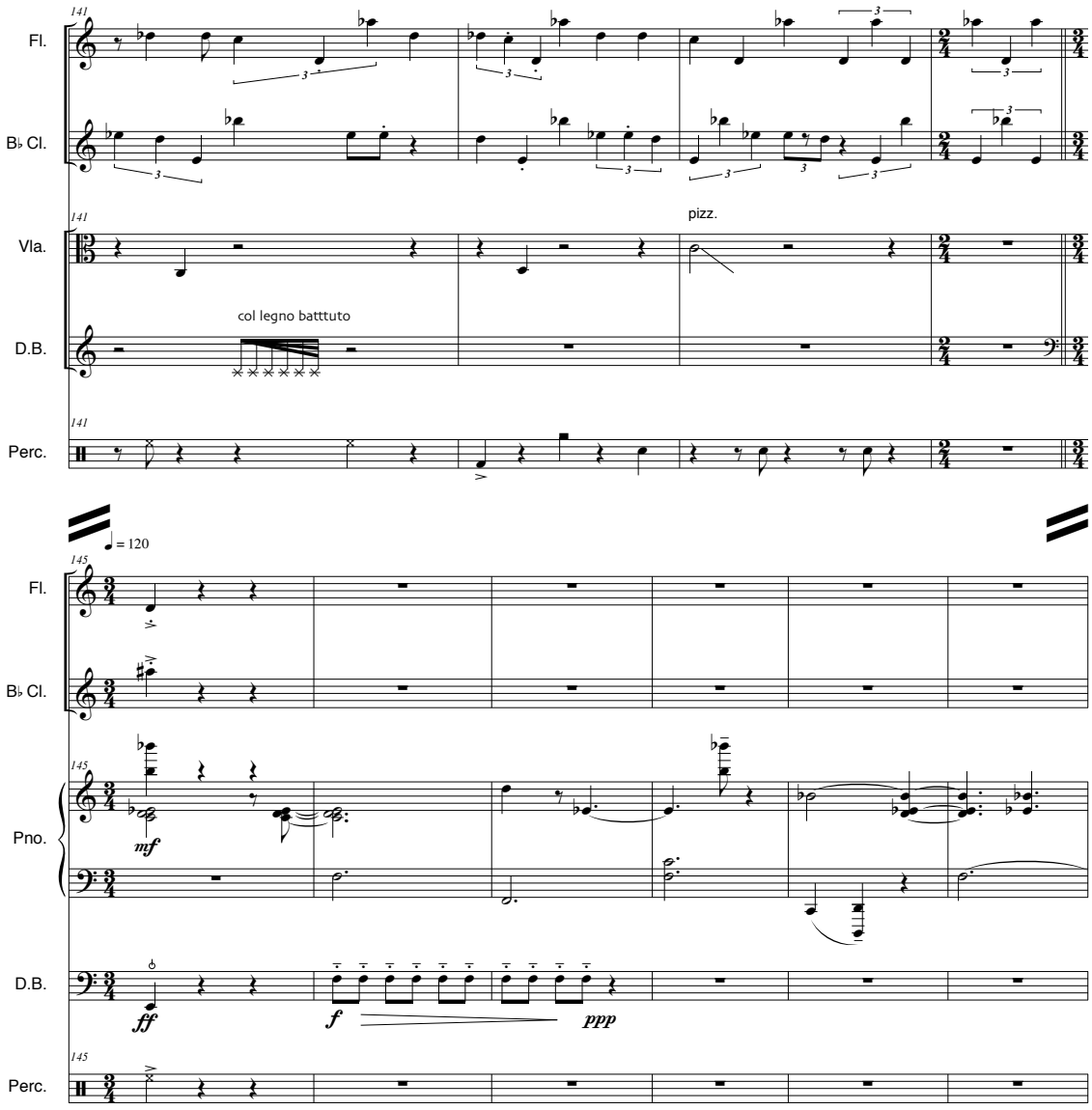

D
gaining energy...
accel.
81
Pno.
Vla.
D.B.
glock.
Vibe/
Glock
p
87
Fl.
B♭ Cl.

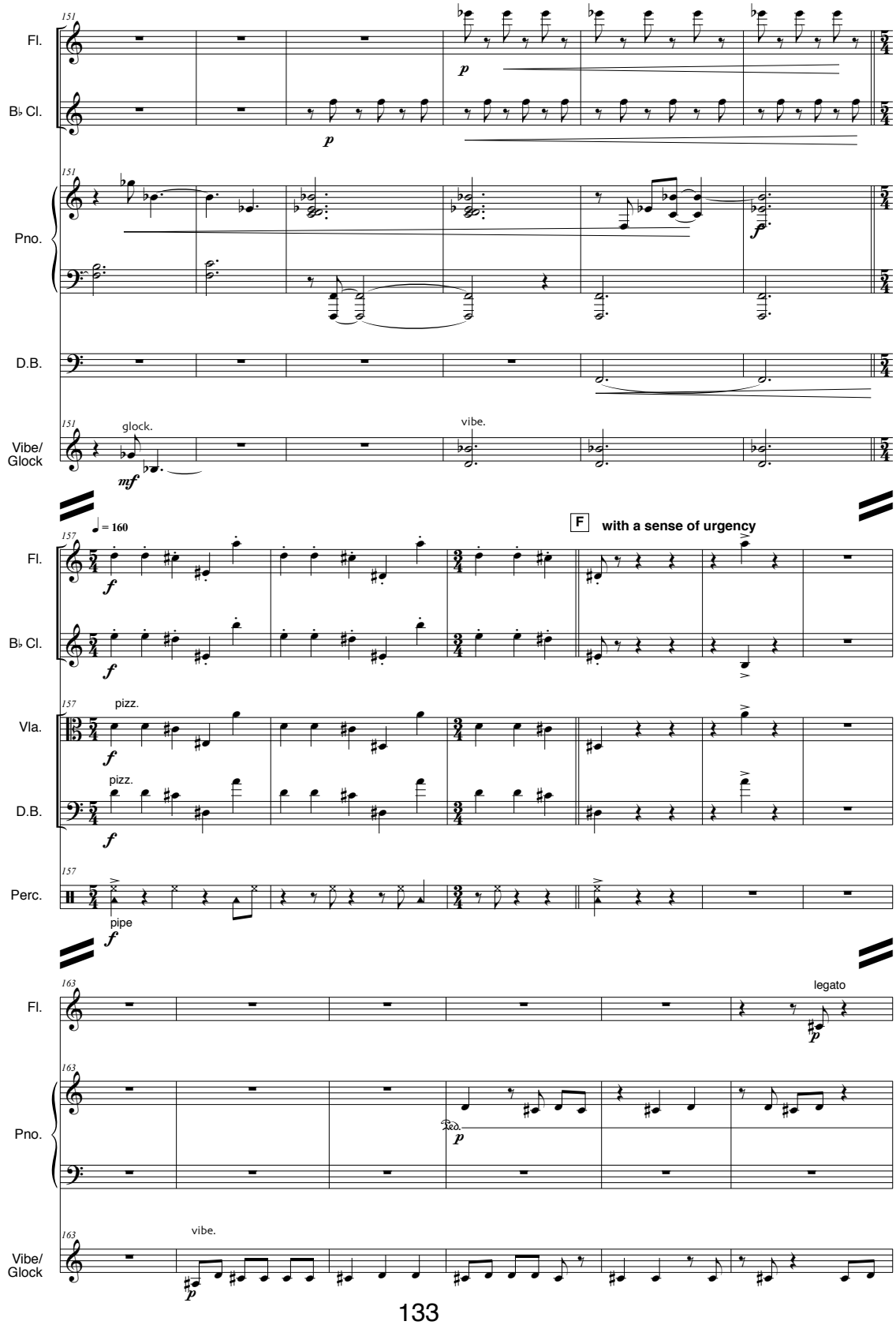

92
Fl.
B♭ Cl.
Pno.
Vla.
D.B.
Vibe/
Glock
97
♩ = 160
E
suddenly timid
♩ = 120
f
p

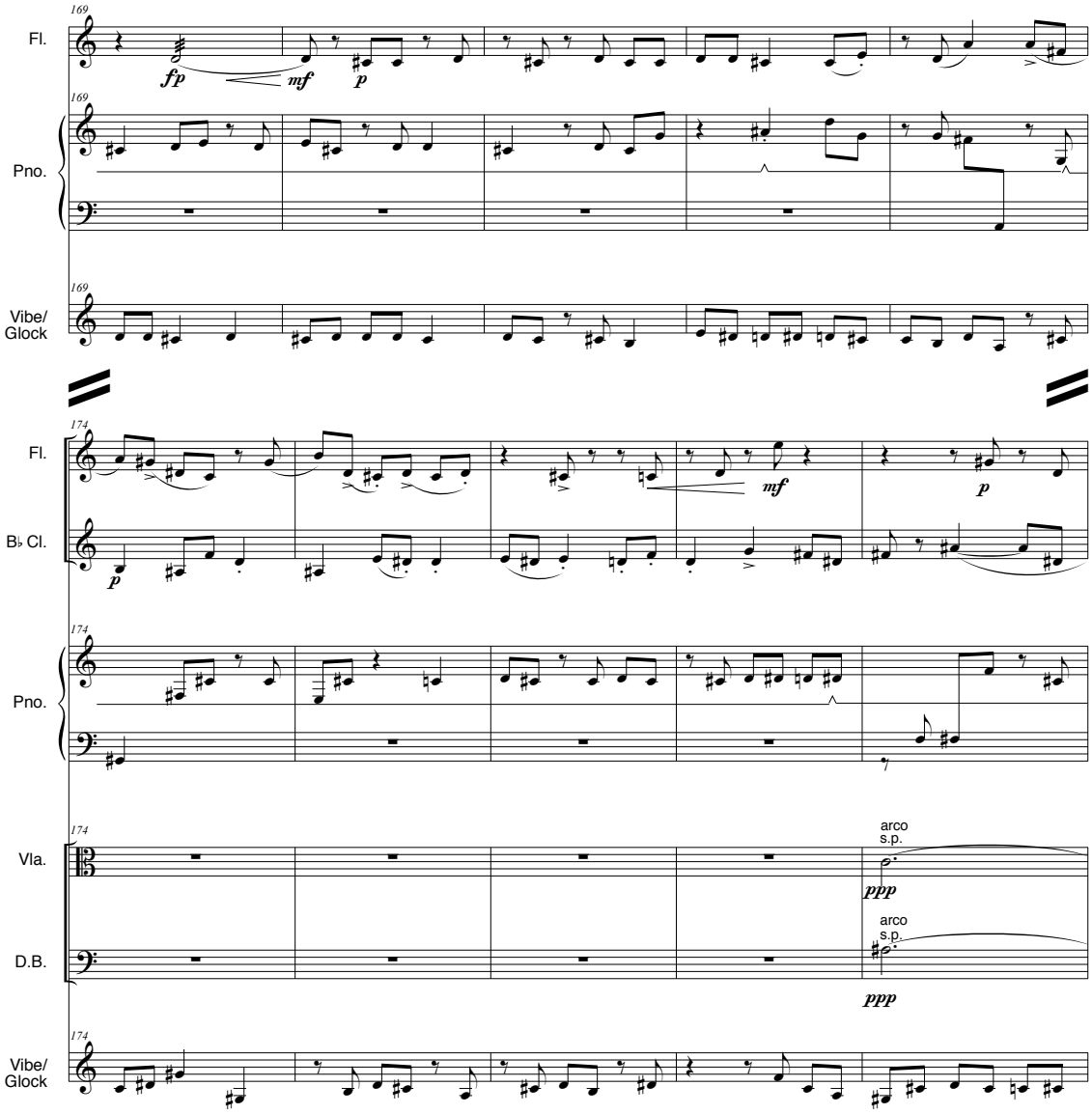

104
Pno.
104
vibe.
w/bow
Vibe/
Glock
f
mechanically
113
♩ = 160
Fl.
B♭ Cl.
f
f
113
Pno.
D.B.
f
113
brake
snare
snares off
tom
cross
Perc.
f
119
Fl.
B♭ Cl.
3
3
3
119
ricochet
ricochet
Vla.
f
D.B.
119
Perc.

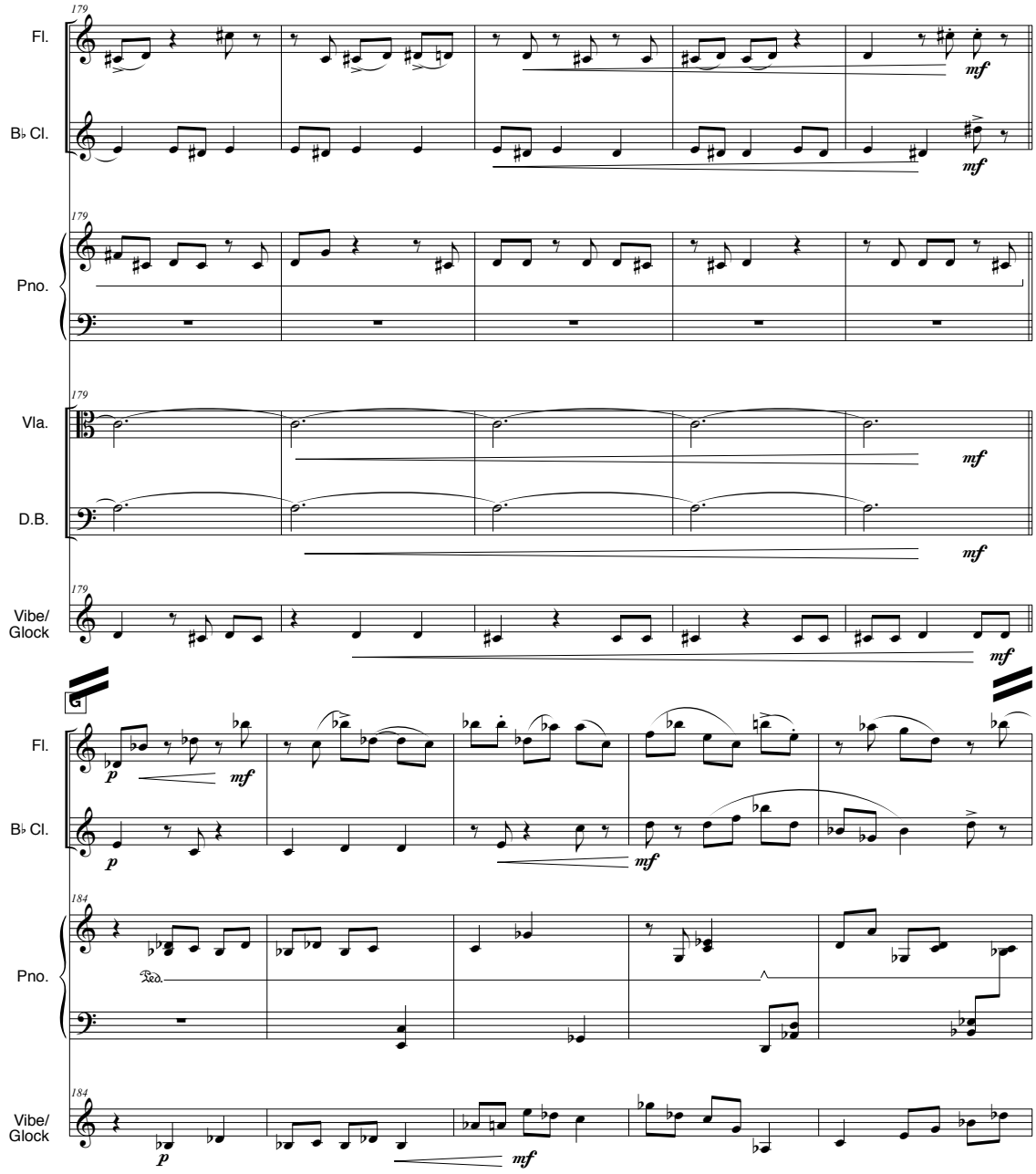

as before
♩ = 120
122
Fl.
B♭ Cl.
Pno.
D.B.
Perc.
woodblock
f
mf
127
mp
p
mp
p
mp
Vla.
pizz.
arco
pp
mf
Vibe/
Glock
glock.
p

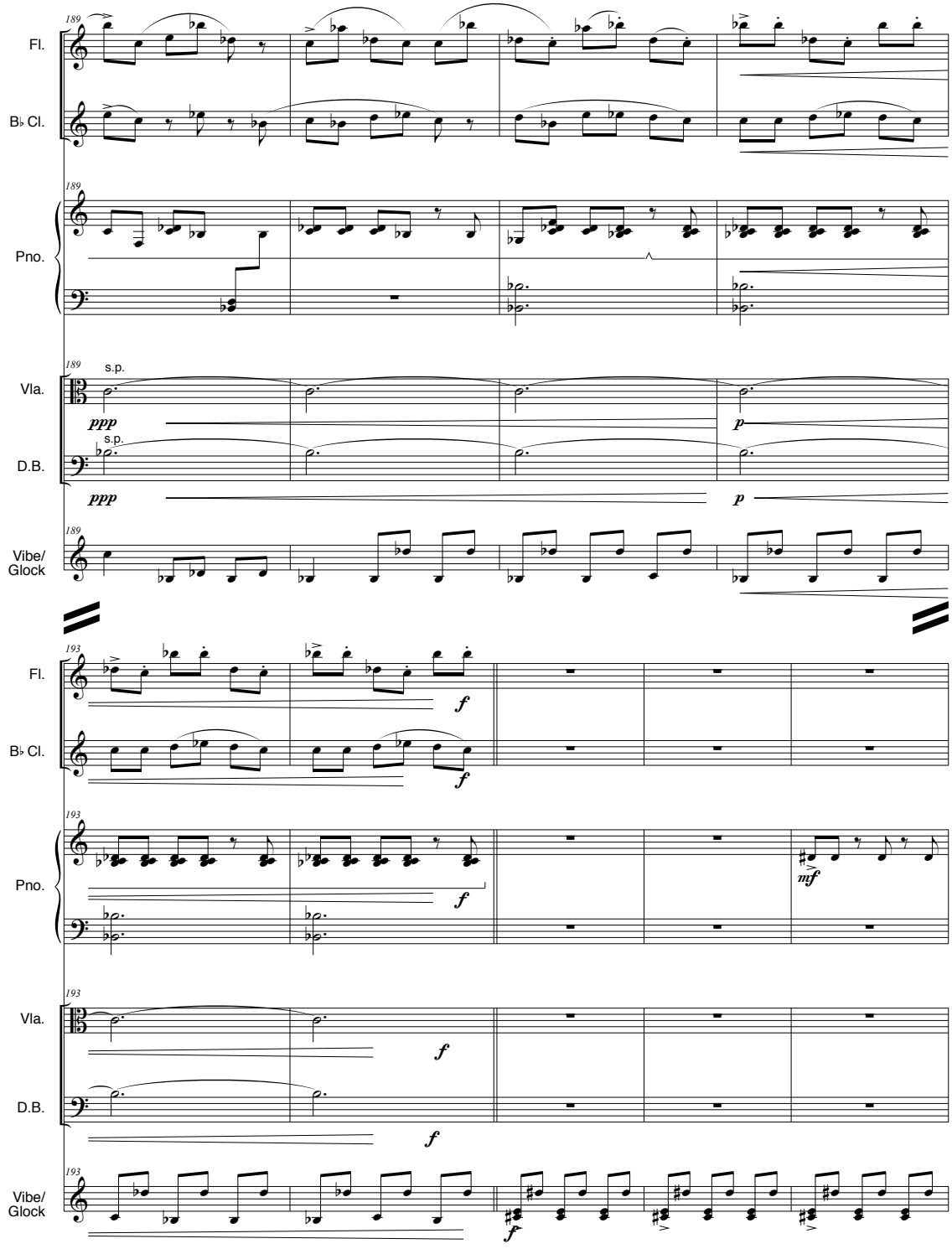

133
♩ = 160
Fl.
B♭ Cl.
sim.
Pno.
Vla.
s.p.
Perc.
138
pizz.
s.p.
ricochet
D.B.

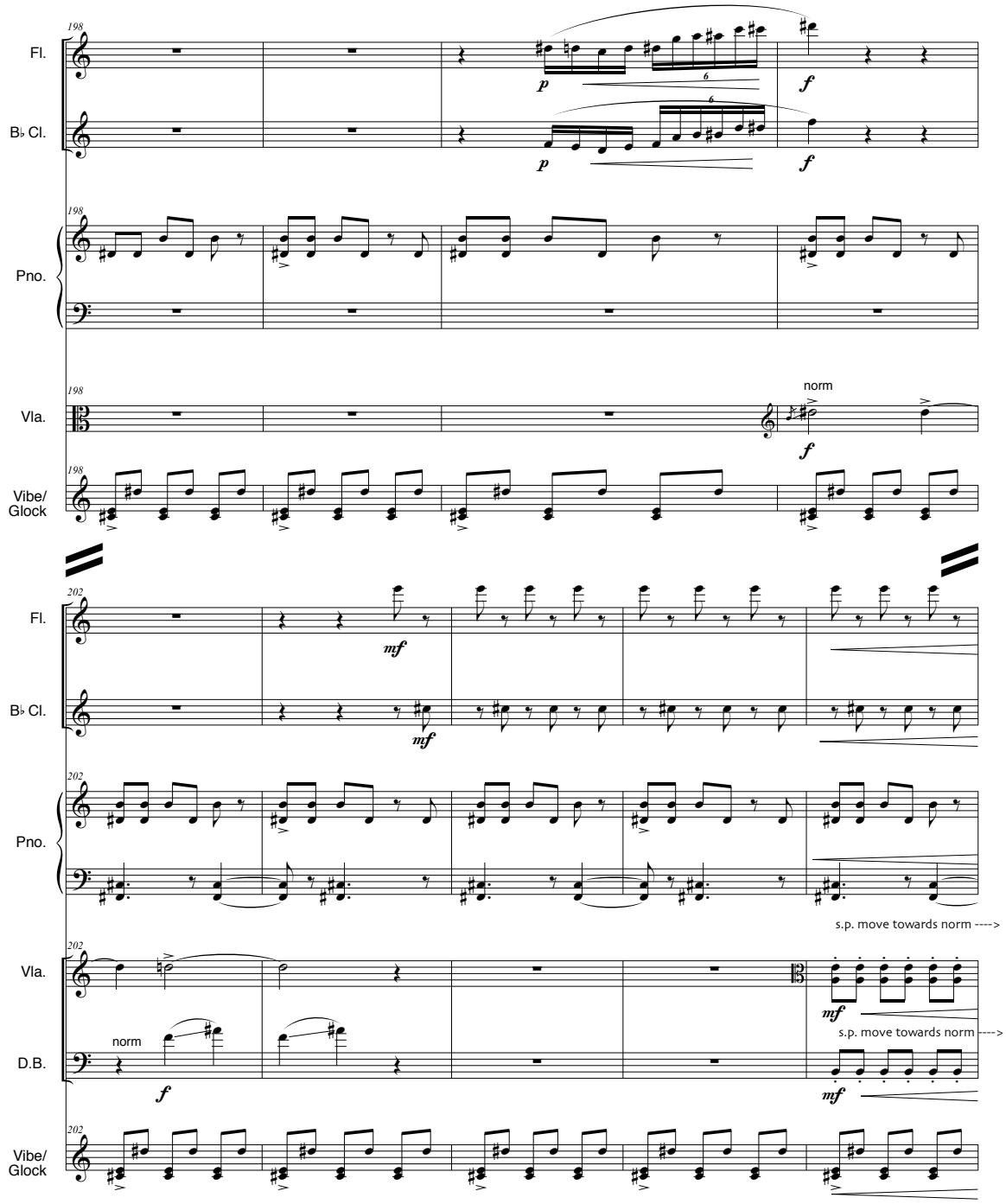

141
Fl.
B♭ Cl.
141
Vla.
pizz.
col legno batttuto
D.B.
141
Perc.
♩ = 120
145
Fl.
B♭ Cl.
145
Pno.
mf
D.B.
ff
f
ppp
145
Perc.

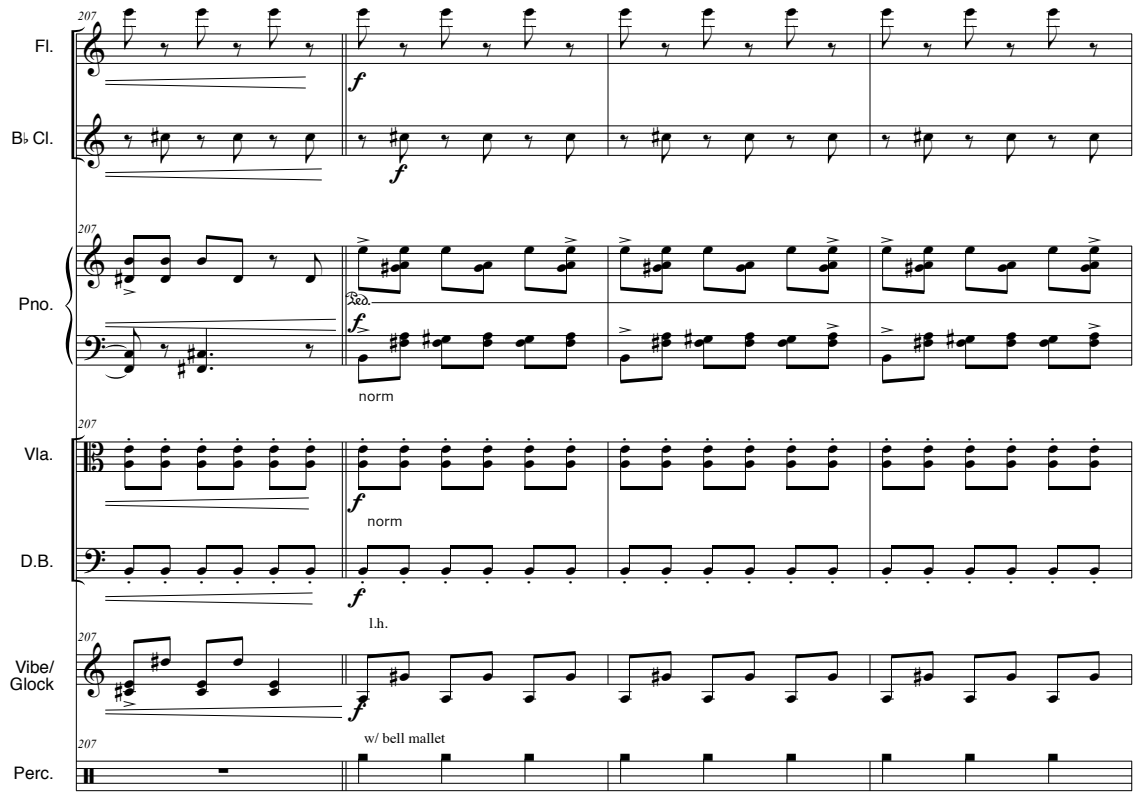

151
Fl.
B♭ Cl.
Pno.
D.B.
Vibe/
Glock
glock.
vibe.
157
♩ = 160
F with a sense of urgency
Vla.
pizz.
Perc.
pipe
163
legato

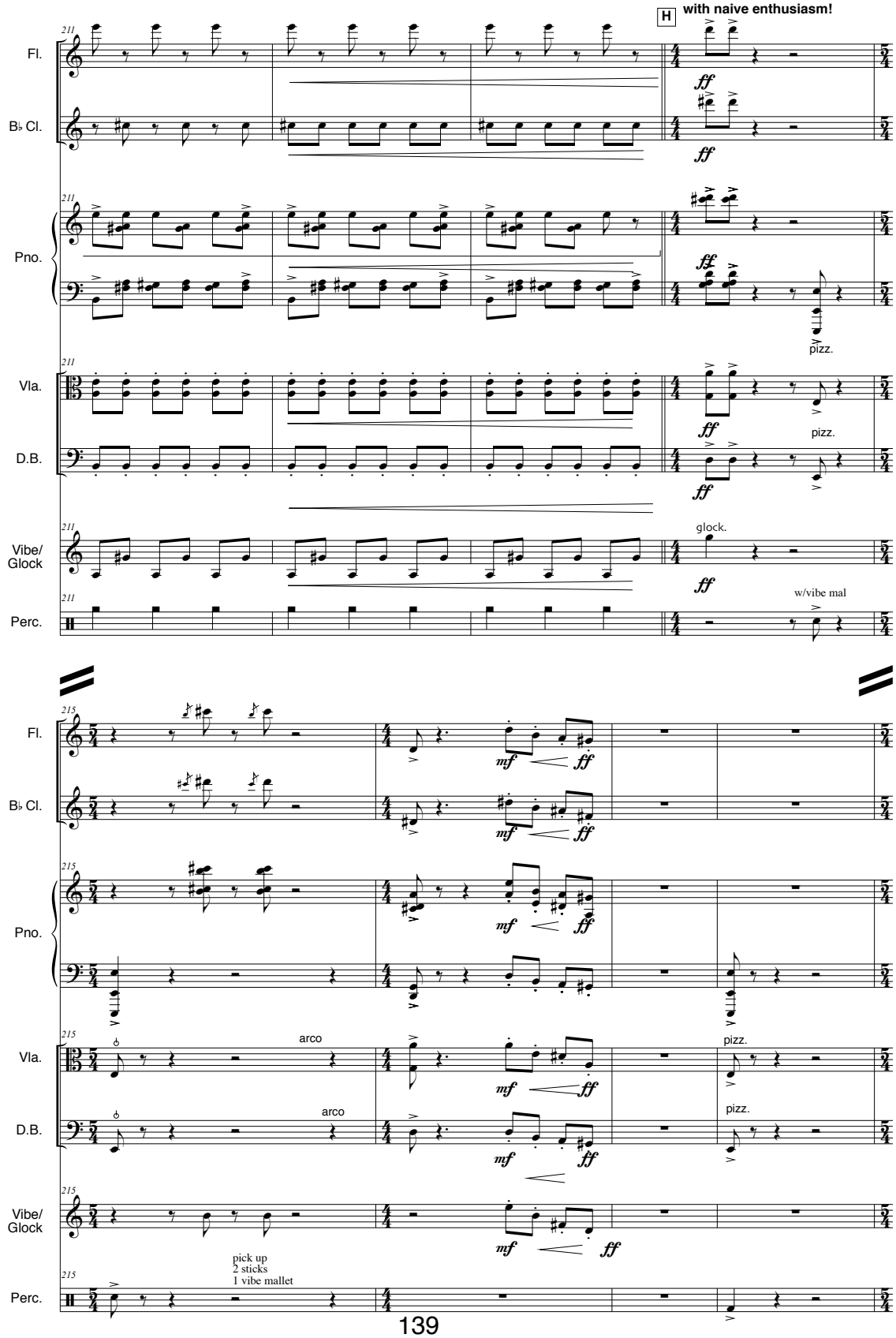

169
Fl.
fp
mf
p
169
Pno.
169
Vibe/
Glock
174
Fl.
mf
p
B♭ Cl.
p
174
Pno.
174
Vla.
arco
s.p.
ppp
D.B.
arco
s.p.
ppp
174
Vibe/
Glock

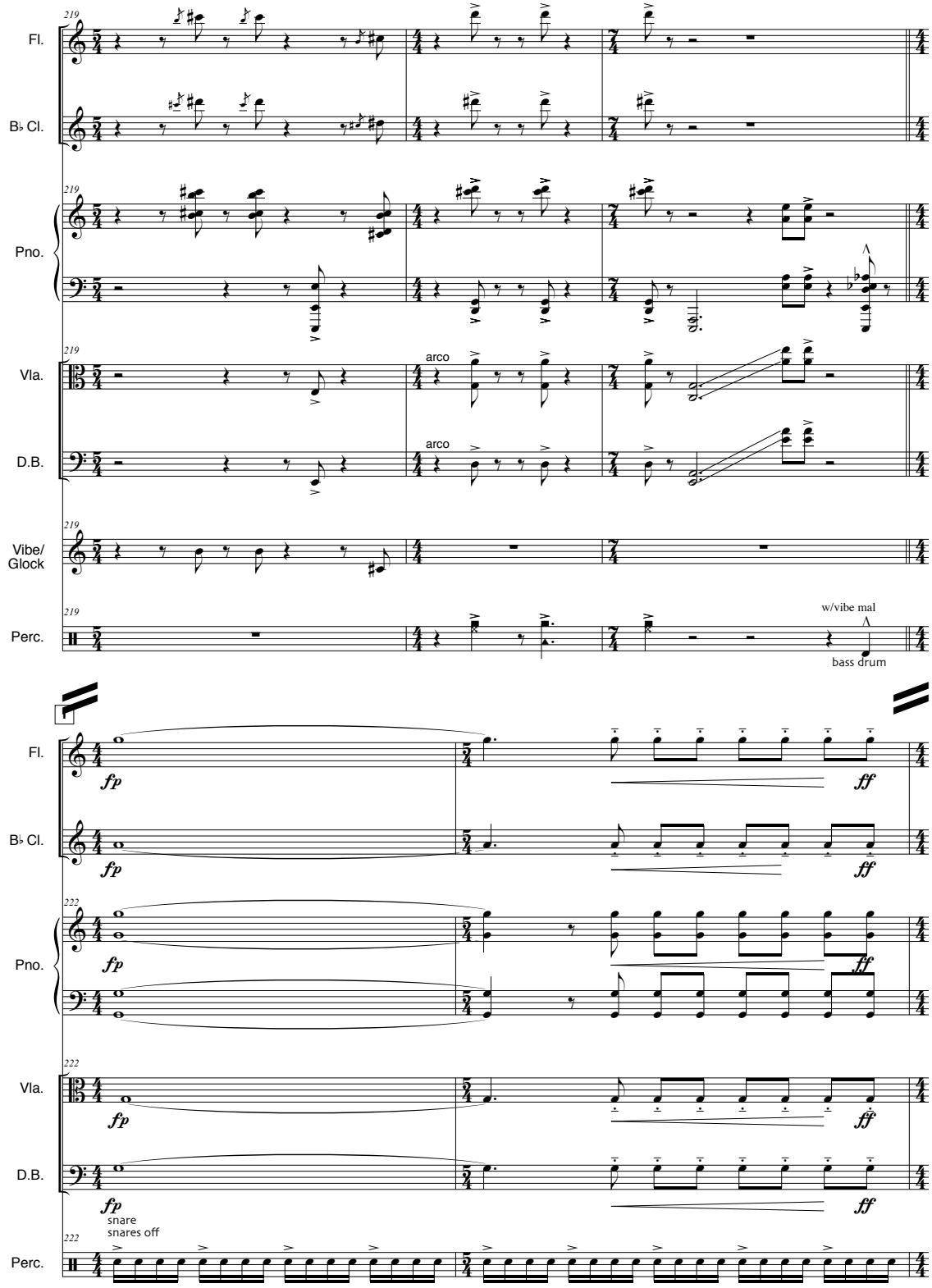

179
Fl.
B♭ Cl.
Pno.
Vla.
D.B.
Vibe/
Glock
mf
G
p
184

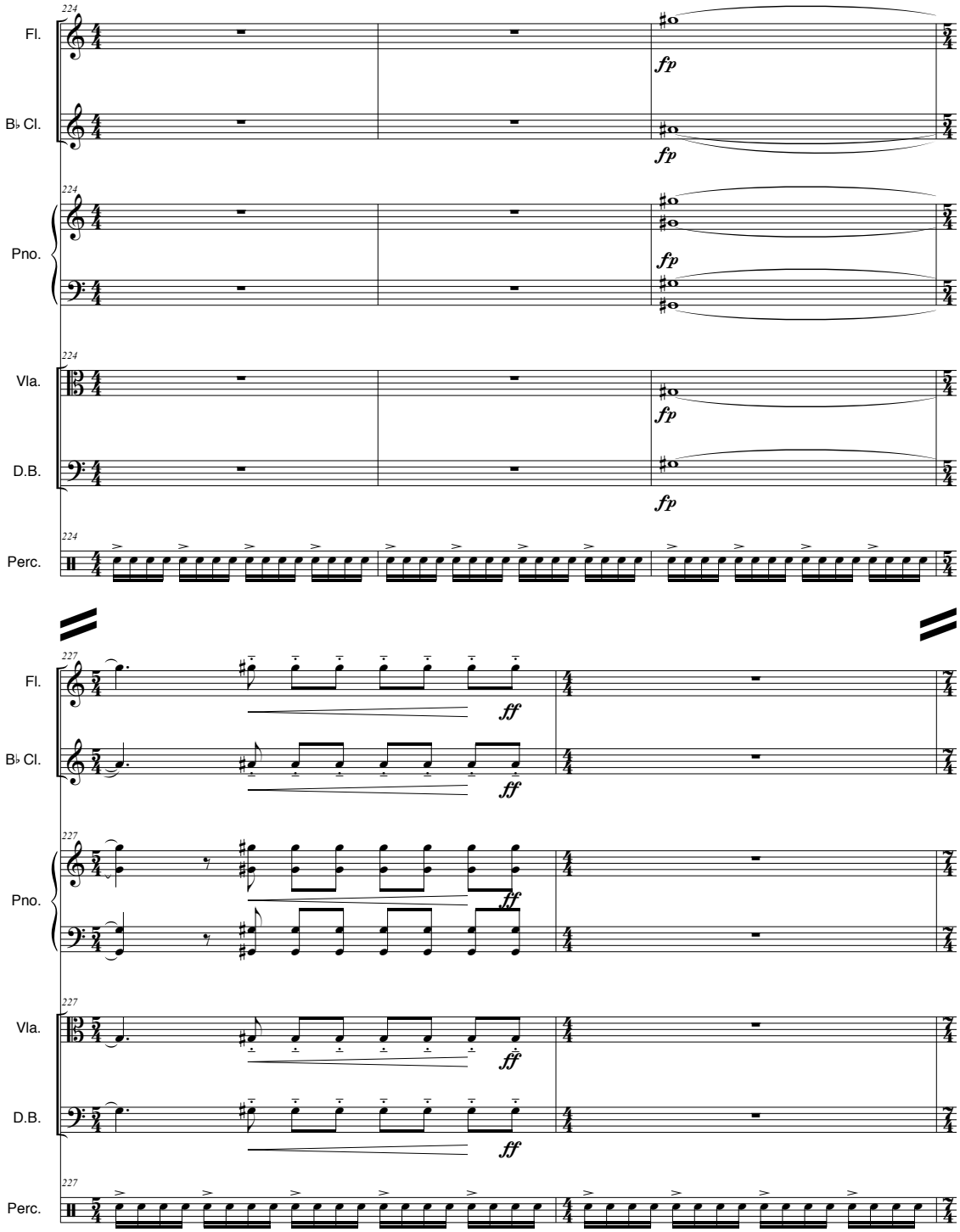

189
Fl.
B♭ Cl.
Pno.
Vla.
s.p.
ppp
D.B.
s.p.
ppp
Vibe/
Glock
p
193
f
mf

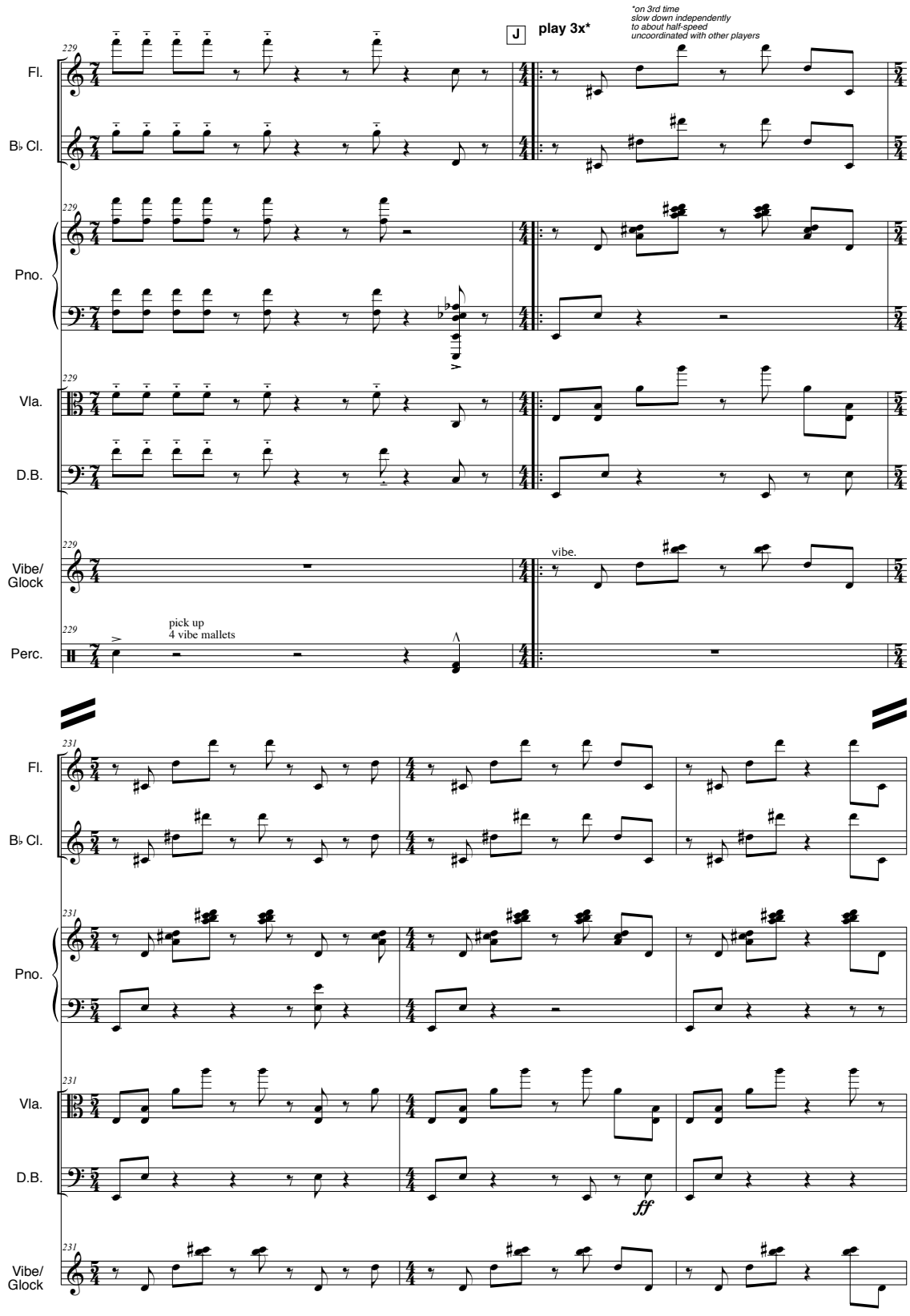

198
Fl.
B♭ Cl.
Pno.
Vla.
Vibe/
Glock
p
f
norm
202
mf
D.B.
s.p. move towards norm ---->
s.p. move towards norm ---->
norm

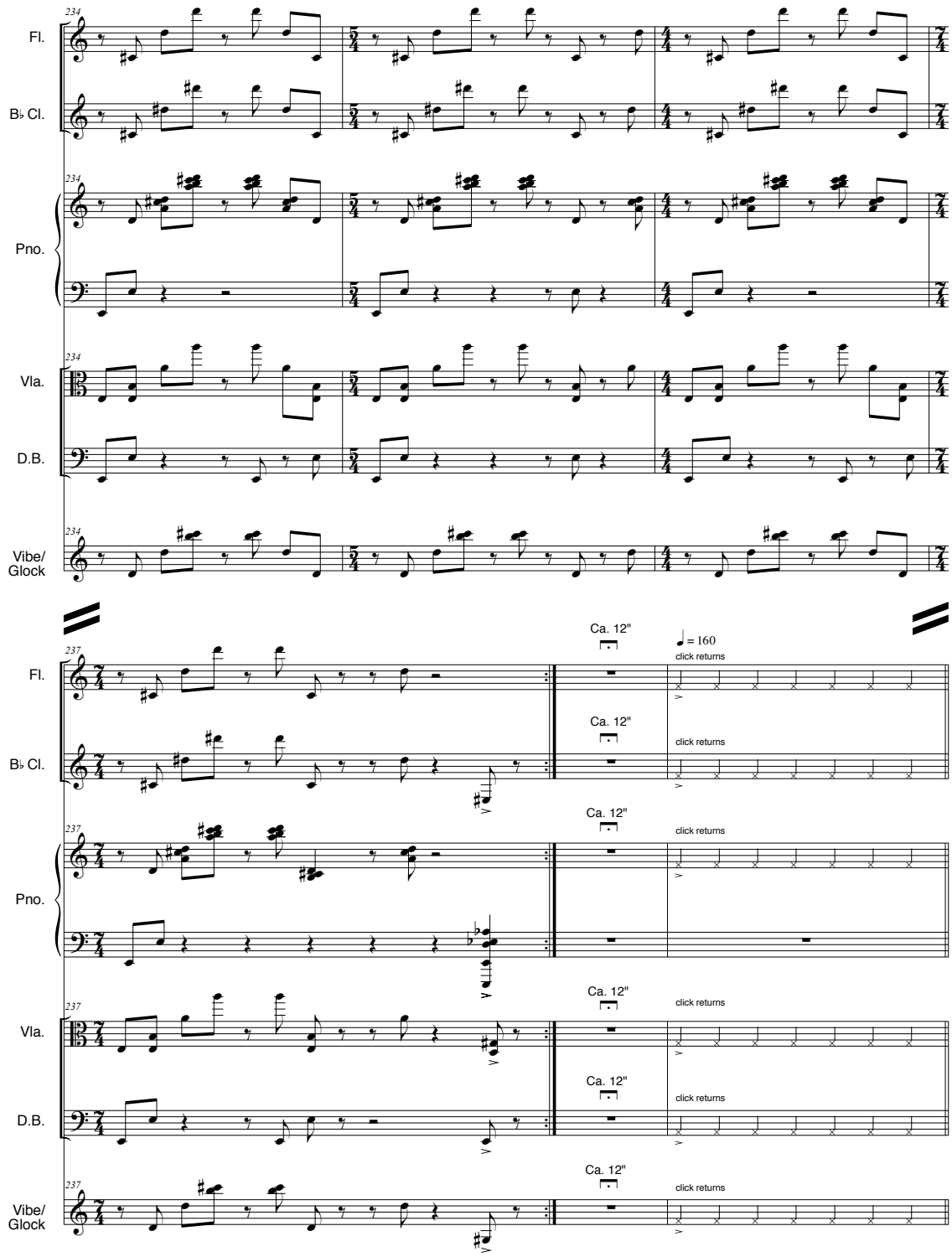

207
Fl.
f
B♭ Cl.
f
207
Pno.
Ped.
f
norm
207
Vla.
f
norm
D.B.
f
l.h.
207
Vibe/
Glock
f
w/ bell mallet
207
Perc.

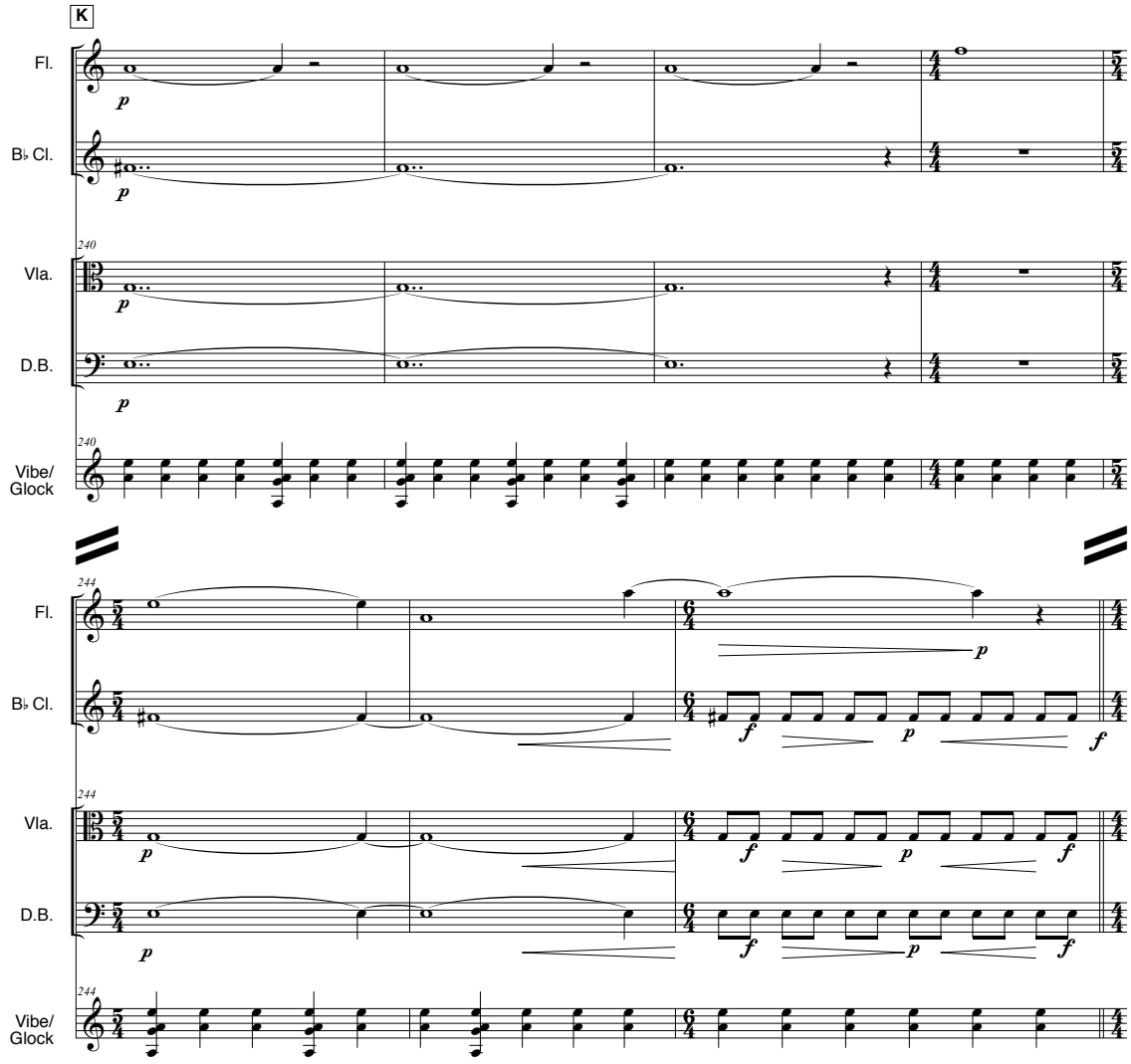

H
with naive enthusiasm!
Fl.
B♭ Cl.
Pno.
Vla.
D.B.
Vibe/
Glock
Perc.
pizz.
glock.
w/vibe mal
arco
pick up
2 sticks
1 vibe mallet

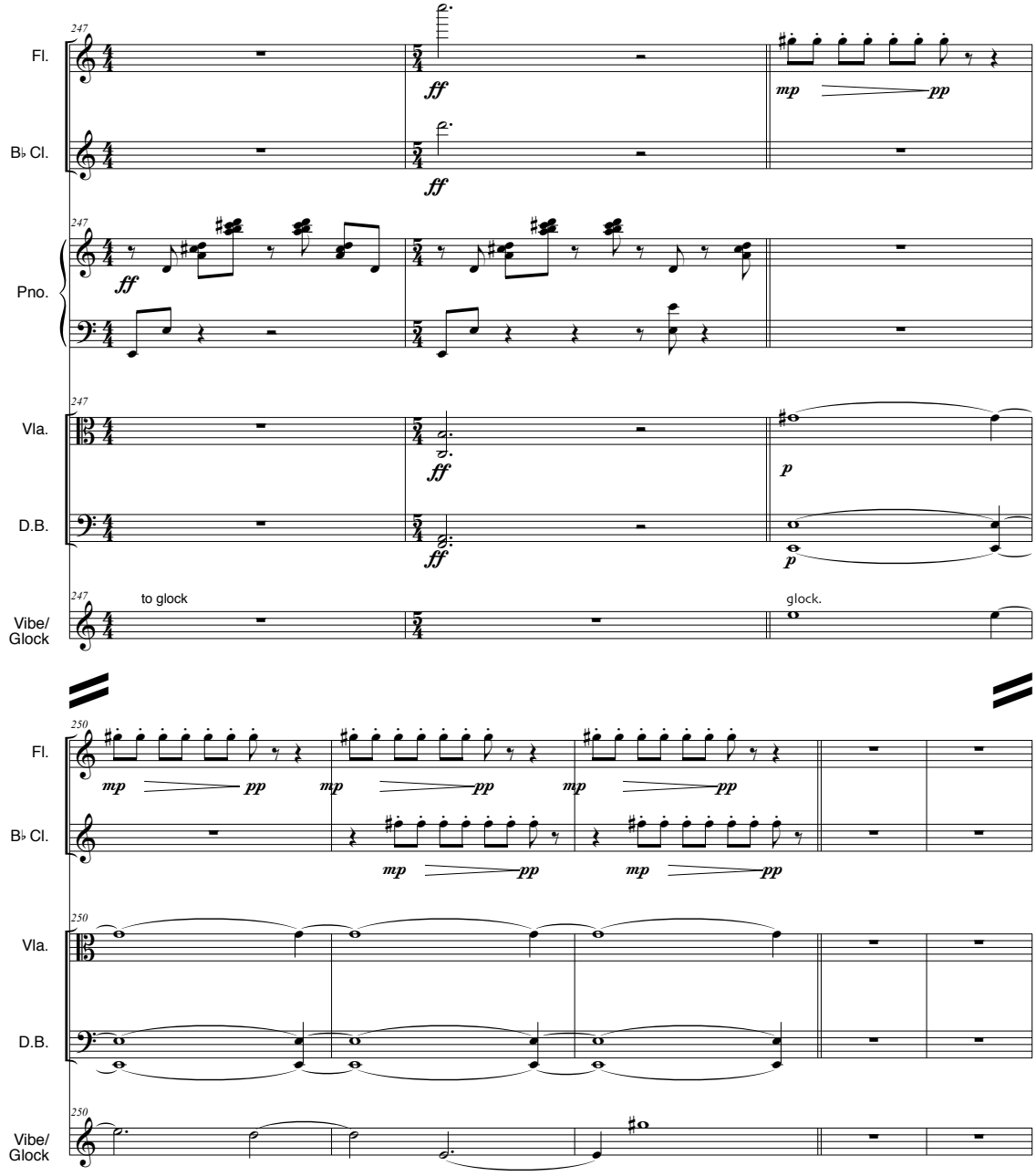

219
Fl.
B♭ Cl.
Pno.
Vla.
D.B.
Vibe/
Glock
Perc.
arco
arco
w/vibe mal
bass drum
222
fp
ff
snare
snares off

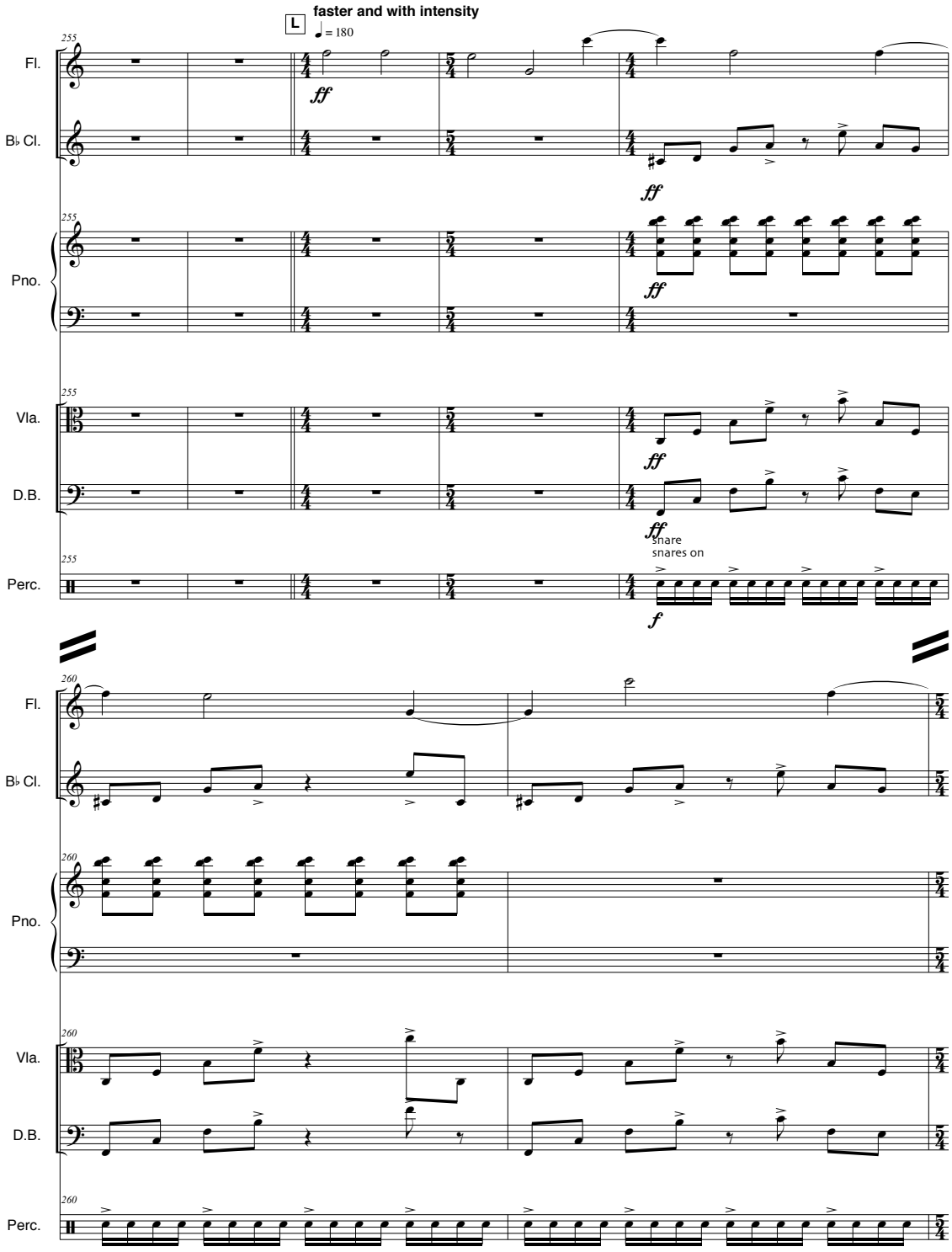

224
Fl.
B♭ Cl.
Pno.
Vla.
D.B.
Perc.
fp
227
ff

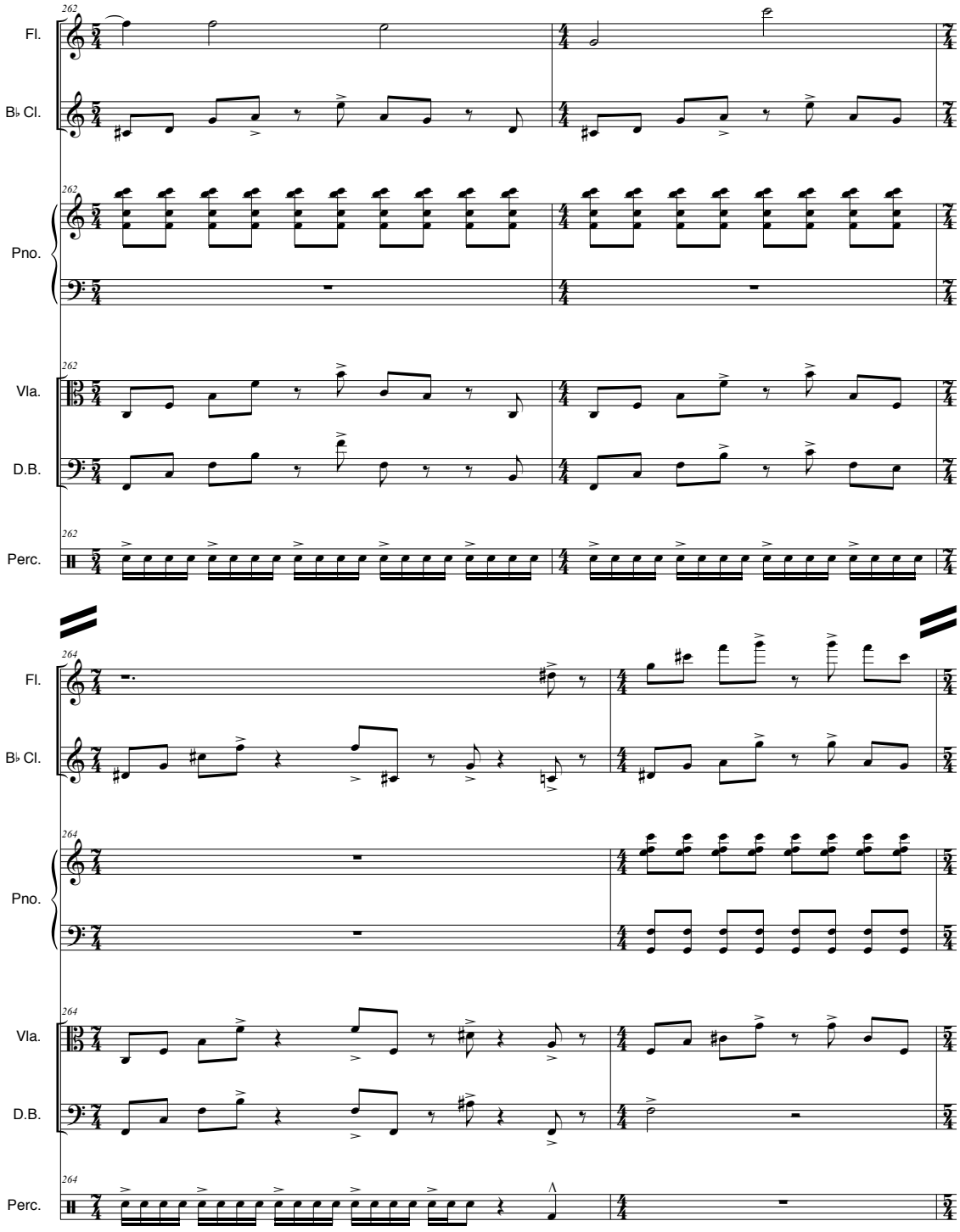

229
Fl.
B♭ Cl.
Pno.
Vla.
D.B.
Vibe/
Glock
Perc.
J
play 3x*
*on 3rd time
slow down independently
to about half-speed
uncoordinated with other players
vibe.
pick up
4 vibe mallets
231
ff

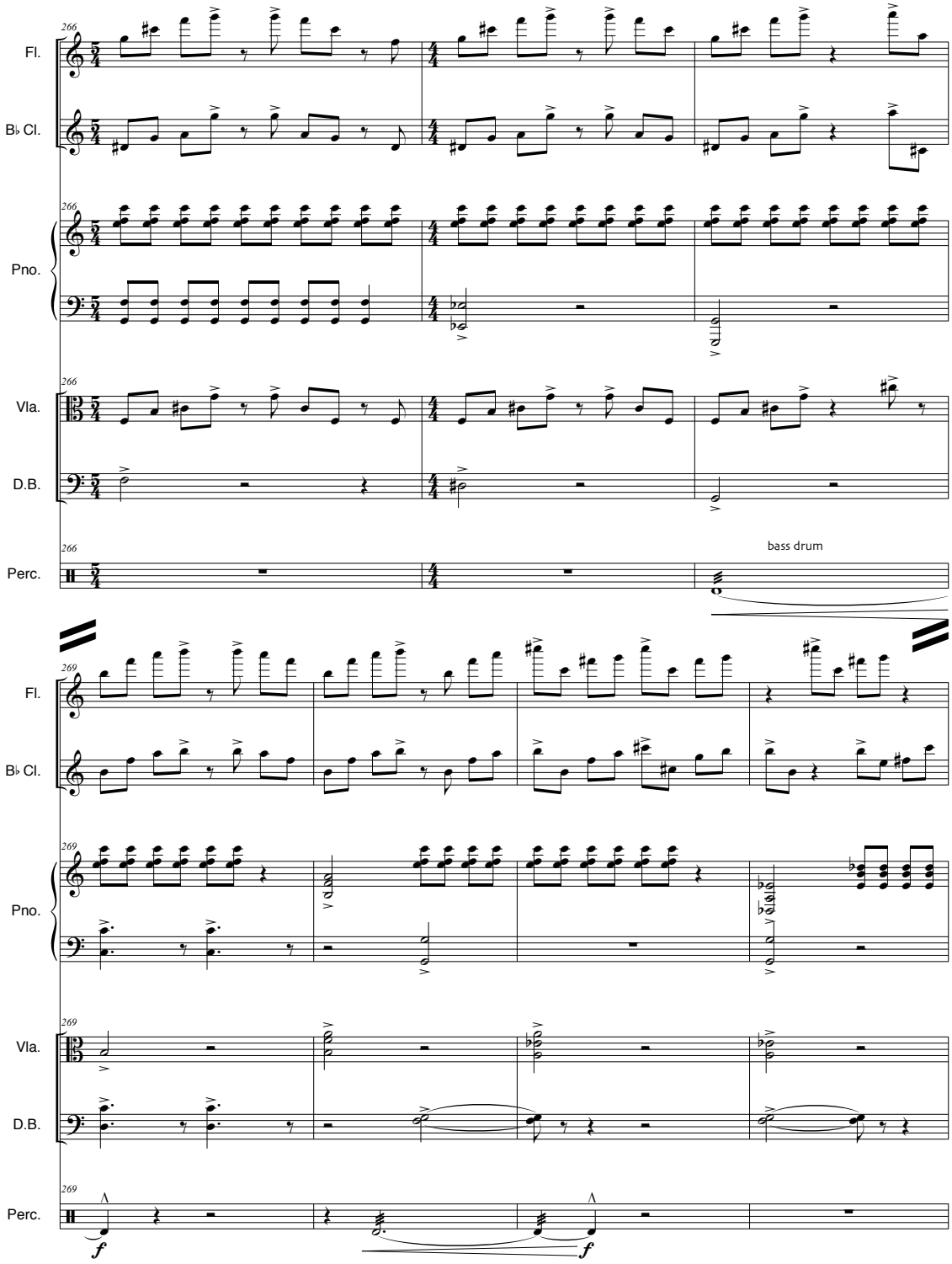

234
Fl.
B♭ Cl.
Pno.
Vla.
D.B.
Vibe/
Glock
237
Ca. 12"
♩ = 160
click returns

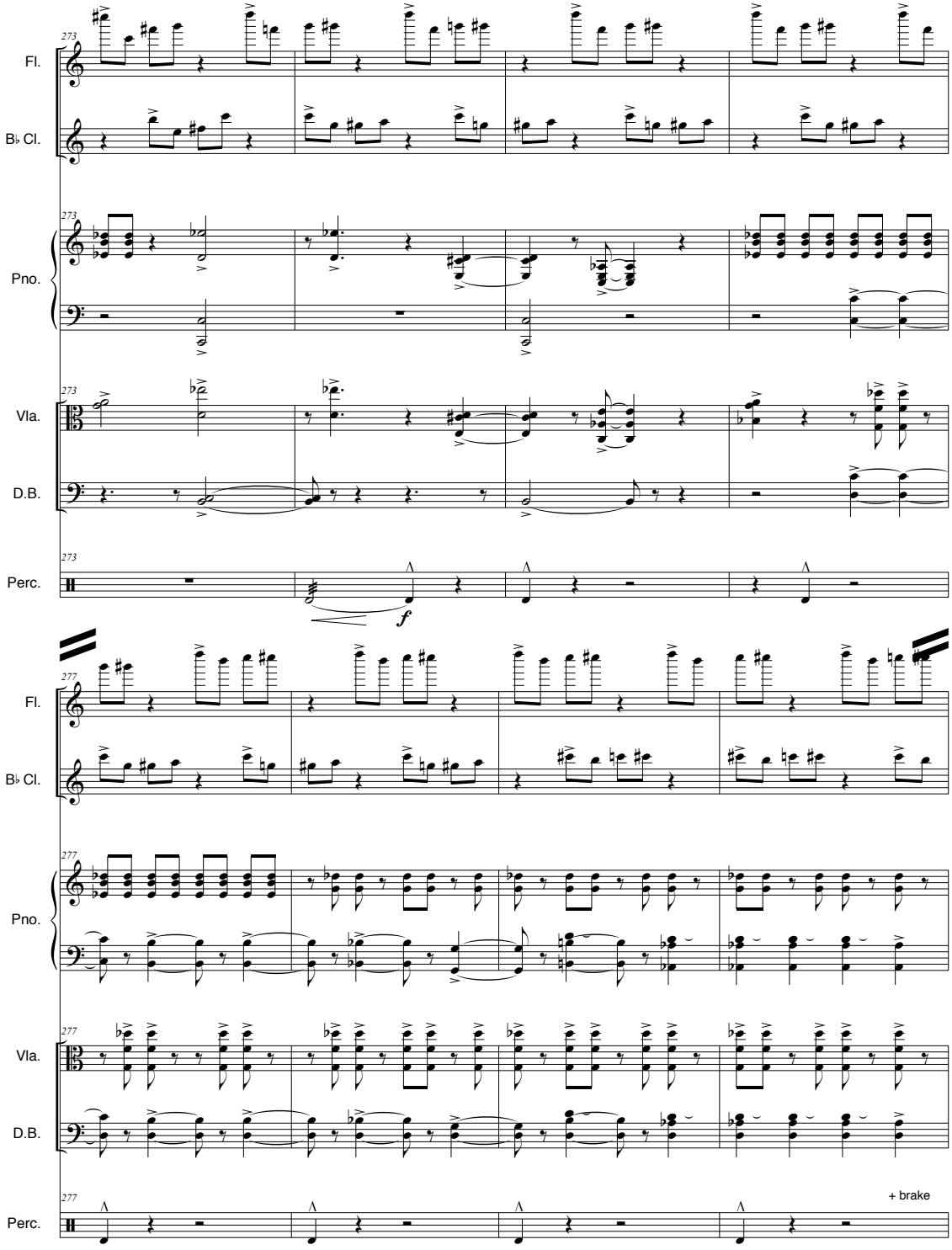

K
Fl.
B♭ Cl.
240
Vla.
D.B.
240
Vibe/
Glock
244
Fl.
B♭ Cl.
244
Vla.
D.B.
244
Vibe/
Glock

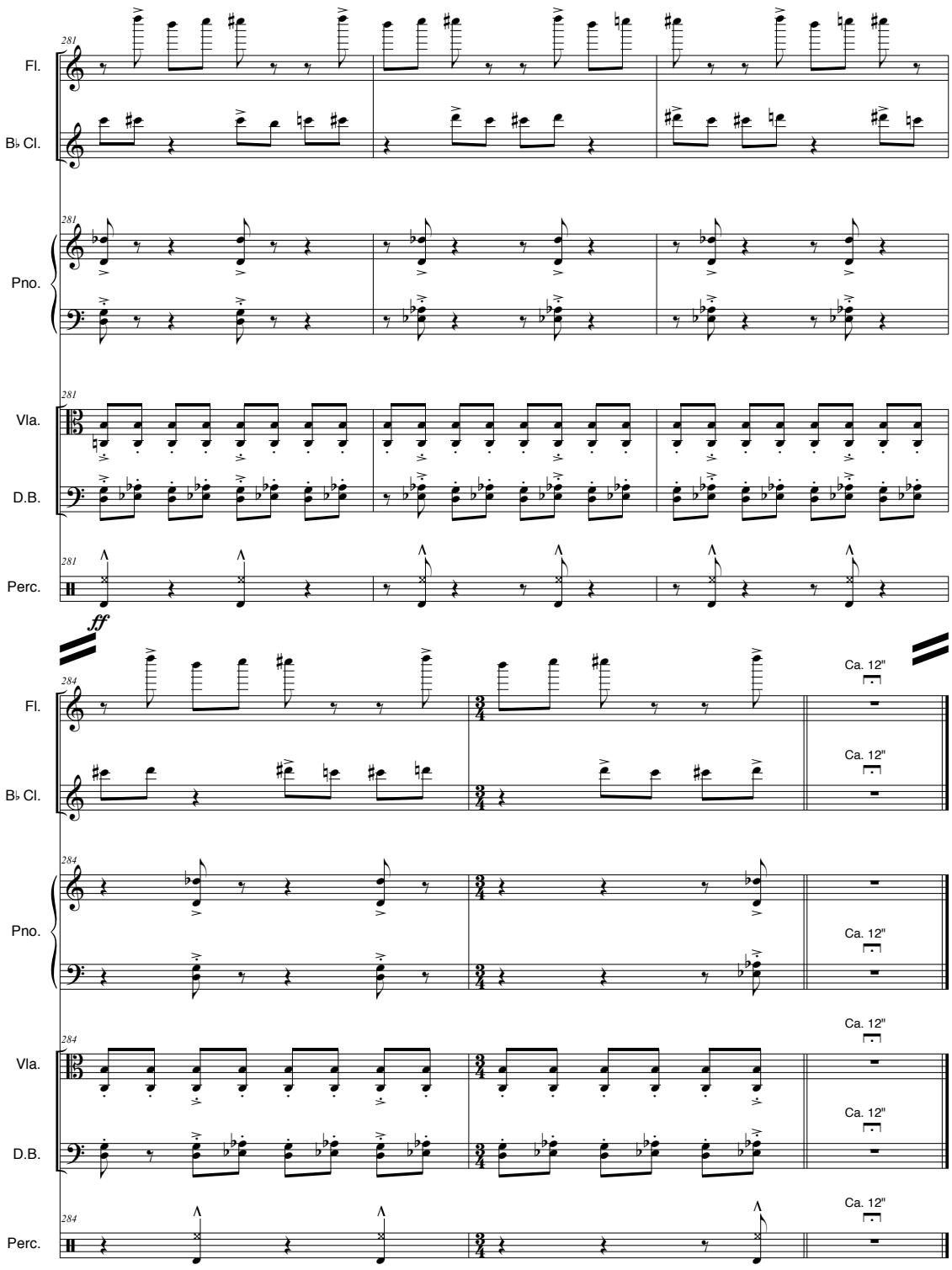

247
Fl.
B♭ Cl.
Pno.
Vla.
D.B.
Vibe/
Glock
to glock
glock.
250


L
faster and with intensity
♩ = 180
255
Fl.
B♭ Cl.
Pno.
Vla.
D.B.
Perc.
ff
snare
snares on
f
260


262
Fl.
B♭ Cl.
Pno.
Vla.
D.B.
Perc.
264
Fl.
B♭ Cl.
Pno.
Vla.
D.B.
Perc.


266
Fl.
B♭ Cl.
Pno.
Vla.
D.B.
Perc.
bass drum
269
Fl.
B♭ Cl.
Pno.
Vla.
D.B.
Perc.
f
f


273
Fl.
B♭ Cl.
Pno.
Vla.
D.B.
Perc.
f
277
+ brake


281
Fl.
B♭ Cl.
Pno.
Vla.
D.B.
Perc.
ff
284
Ca. 12"

SMACK THE WRIST GOOD (2014)

for two electric guitars and spoken word

Premiered March 2014 by the Ignition Duo at Lotte Lehmann Concert Hall,
University of California, Santa Barbara

PROGRAM NOTES

Smack the Wrist Good is inspired by text by Lewis Lewis, a poet I met on the street outside a busy marketplace in downtown Santa Barbara in the summer of 2013. He does the bulk of his work at the request of passers-by on an old Smith Corona typewriter, writing poems for donations, often for free.

I asked Lewis to create a work for this piece in exactly the same way he takes requests on the street: by using a single word as impetus. In the case of this text, the word I gave Lewis was "value". The wonderful poem he wrote for me (in less than a few minutes) is included on the following page, the original version on the left and my altered version on the right. The text in brackets is spoken by one guitarist while the text without brackets is the other.

PERFORMANCE NOTES

Spoken text:
In speaking the text, one should always speak as naturally and relaxed as possible, even in more active and aggressive passages.
The words “smack", "wrist", and "good" are always spoken simultaneously with musical events, these events will have the words directly below the event, like lyrics.

Timers:
The first section is coordinated with timers and the accompanying notation is spatial (proportional). Each tick represents five seconds of time passing. Within each "bar" attacks are placed approximately where they should fall within this 5 second window.

Pitch cells:
Pitches which appear with a box around them can be though of as a looped sequence of notes. The performer is allowed to move through the sequence freely, the spacing of the pitches inside the cells does not indicate rhythm. This sequence repeats until the line after the sequence is interrupted by a new event.

NOTATION

Pedals:
Pedals are indicated with an abbreviation encapsulated in a box. The following abbreviations apply:

Cln: Clean
OD: Overdrive
Rvb: Reverb
Dly: Delay
Dst: Distortion

Other indications:

O.P.P.M: Over-pressure palm mute (paired with "x" noteheads). When executed, one should get a short click sound, different pitches will give these clicks different colors and timbres. Combined with a delay pedal with a relatively high feedback and delay time setting, this should create a "granular" texture.

ASAP: Indicates that transitions to and from the indicated spoken words should happen immediately. The text here should still be spoken naturally but the space between music and speaking should be almost non-existent.

Dotted lines: indicate a more immediate, deliberate interruption of spoken text.

ninety nine cents the
gray ancient blue heron
her stillness and untouchable

skin
from a womb story
she was delivered into our predatory matrix

where if we had joined powers
of memory held hands in old groves
the spray of peeled citrus skin

(picture) mid-air falling fruit
(texture) gray ancient rough hands
(sound) rolly pollies racing down the hill

and nothing measures up to life
like death the
looming ruler that smacks the wrist good

[good]
[good]
[good]
[good]
[good]

ninety nine cents
ninety nine [good] cents
ninety nine cents the
gray ancient blue heron her stillness [good]
and untouchable

[wrist]
[good]
[good]
[wrist]

skin
from a womb story [smack]
from a womb story [smack]
[smack]
a [good] womb story [smack]
she was delivered into our predatory matrix

[the good]
[the smack]
[the wrist]

where if we had joined powers
of memory held hands in old groves
memory held hands [wrist] in old groves
held hands [wrist] in old groves
the spray of peeled citrus skin

[smack the wrist good]

mid-air falling fruit
gray ancient rough hands
rolly pollies racing down the hill

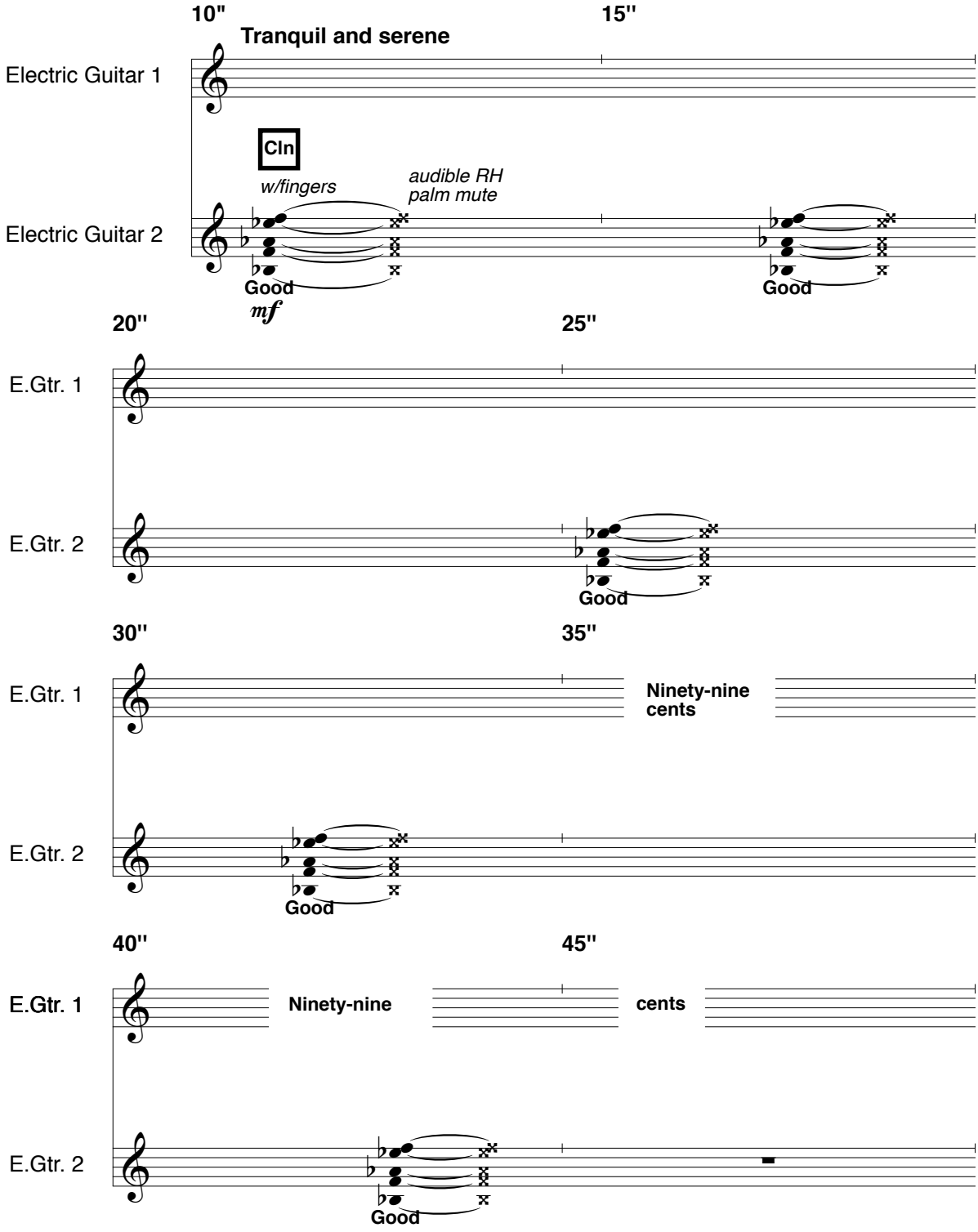
and nothing measures up to life
like death the
looming ruler that smacks the wrist [good]

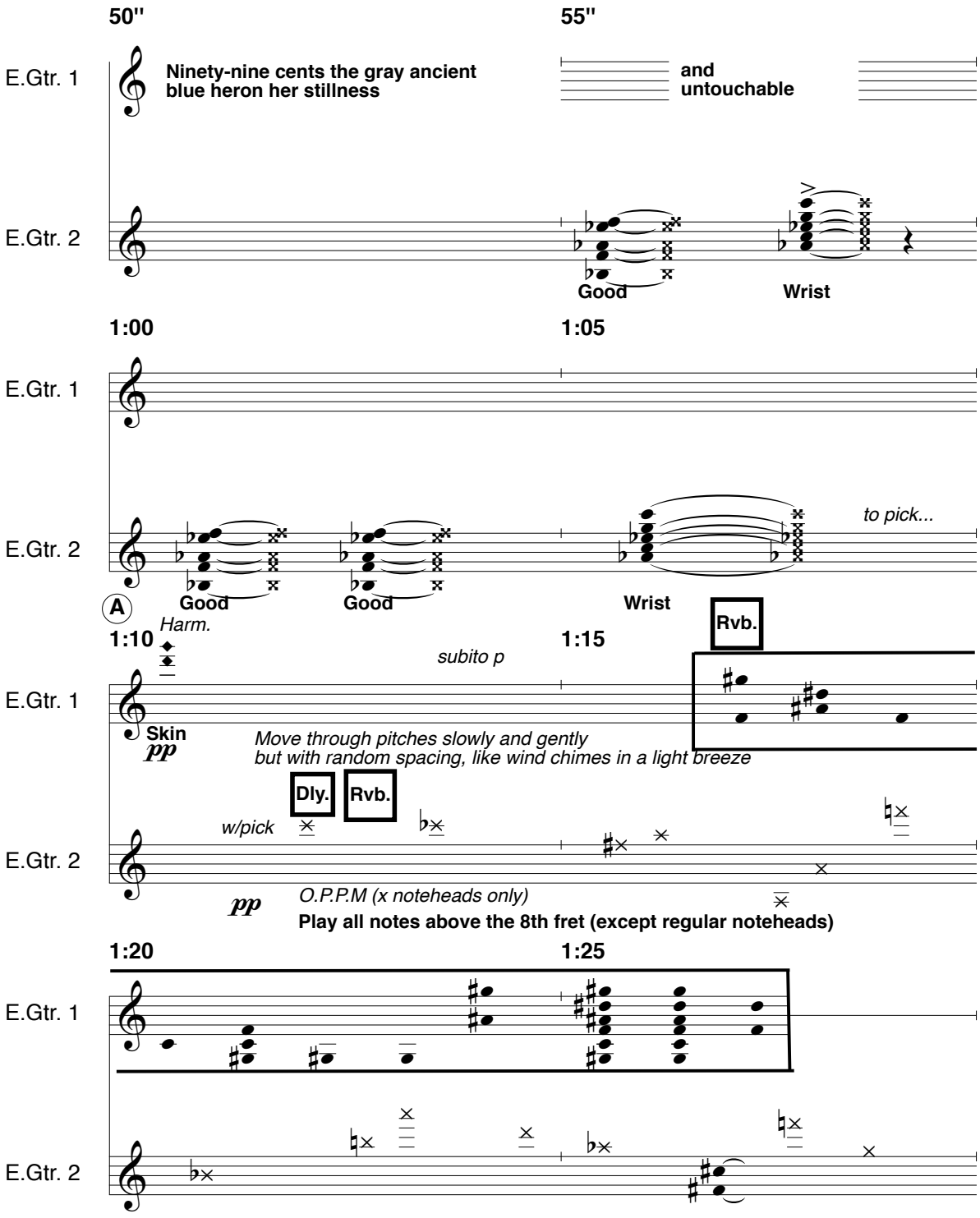
Score

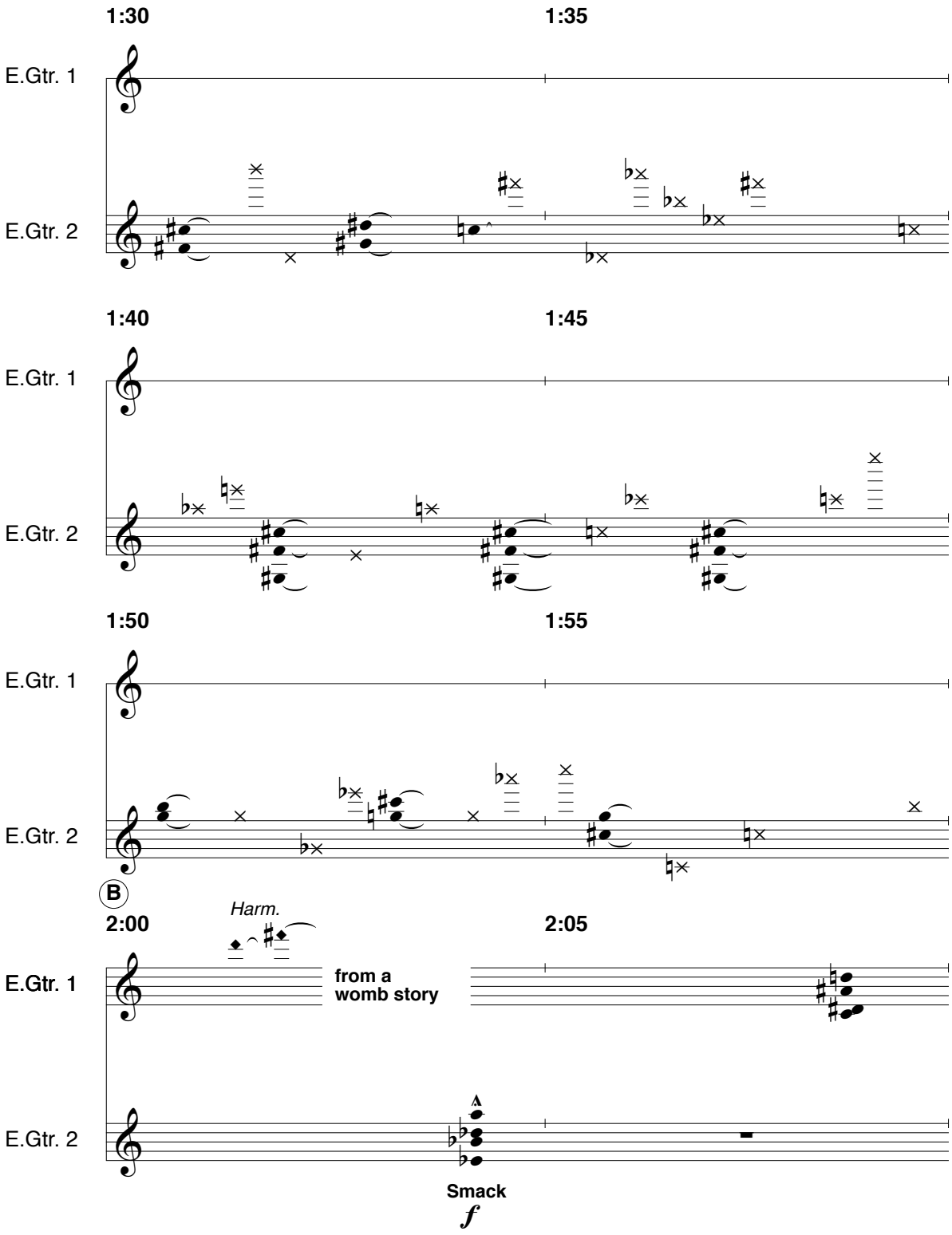
Smack the Wrist Good

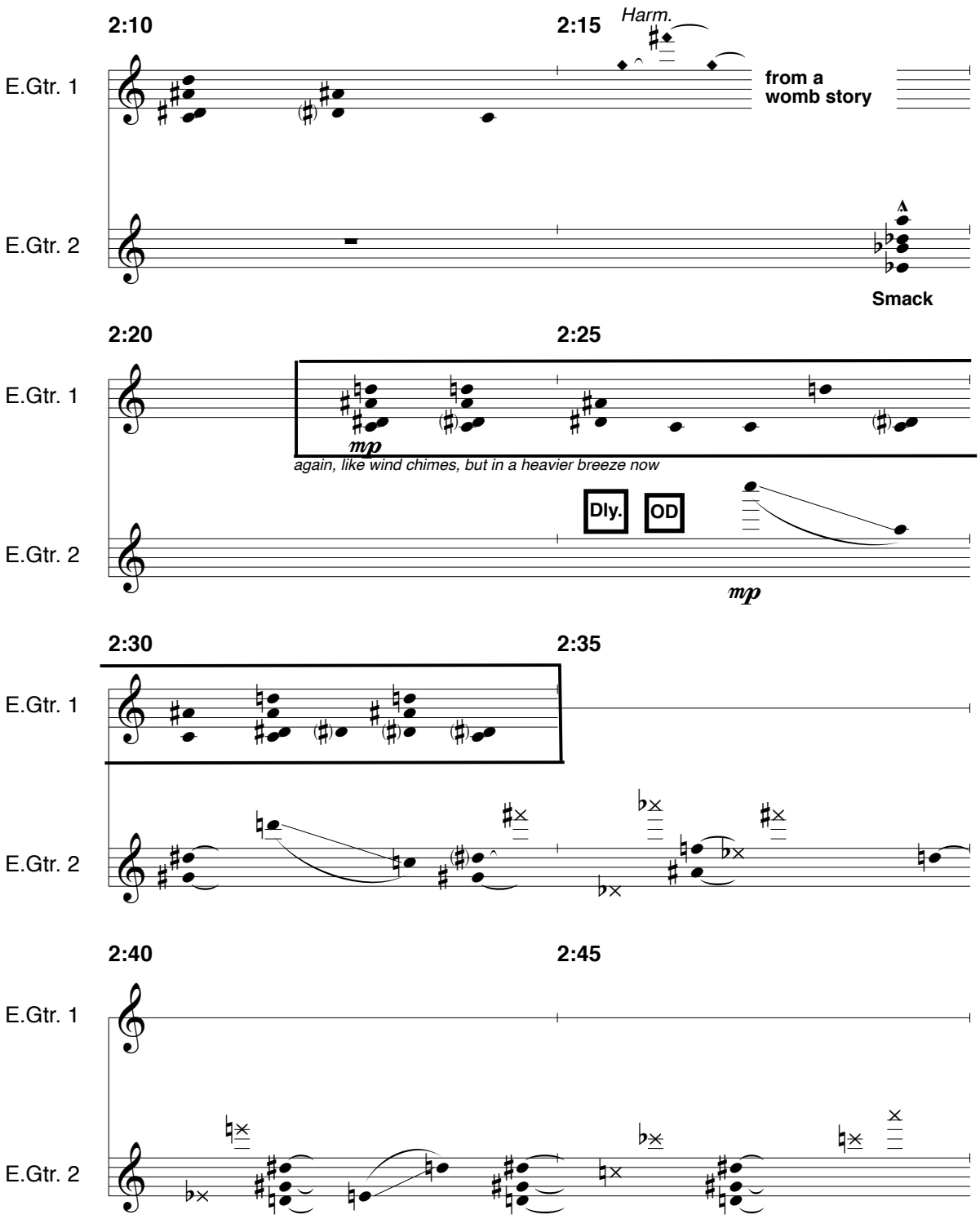
for the Ignition Duo

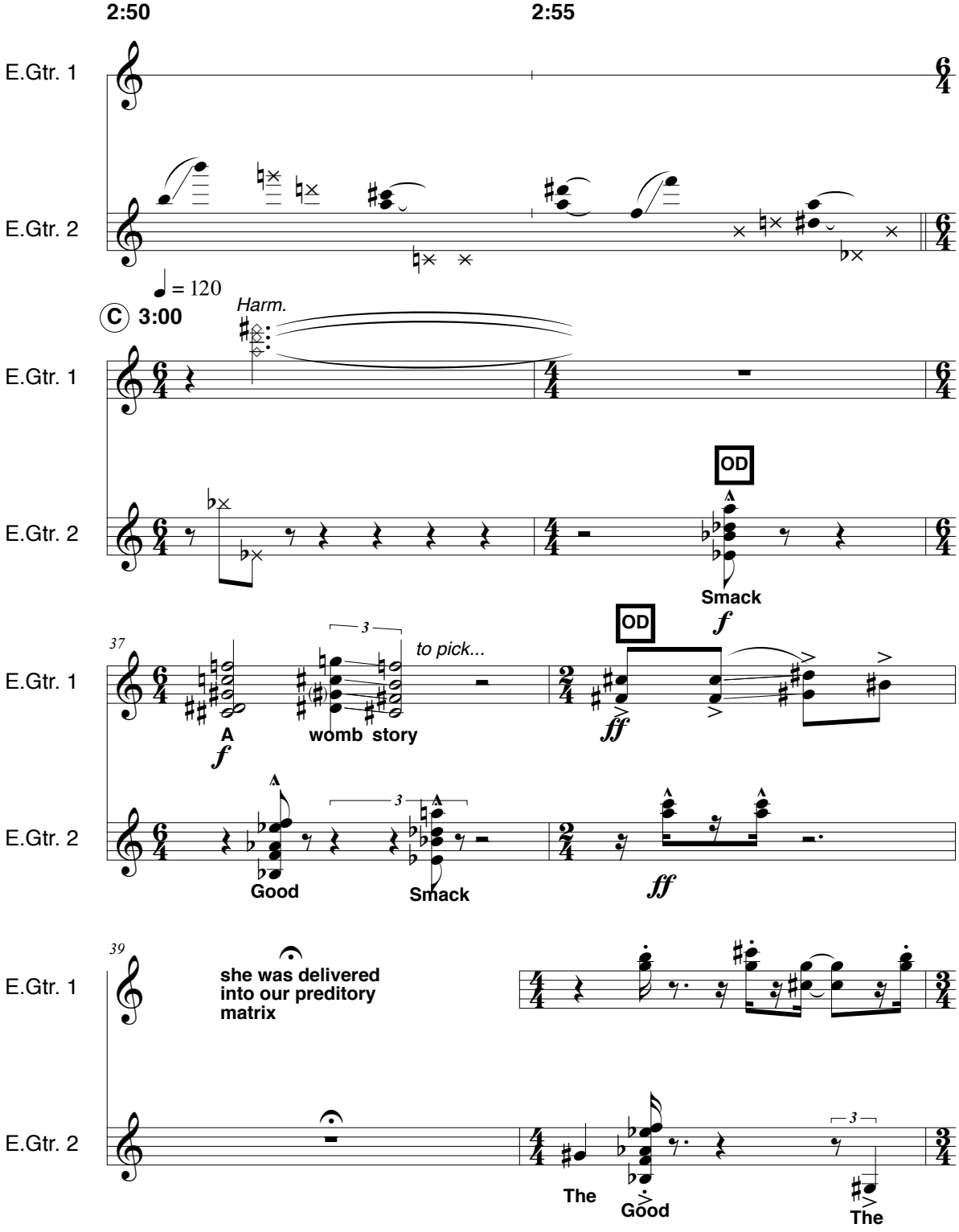
Anthony Paul Garcia
text by Lewis Lewis

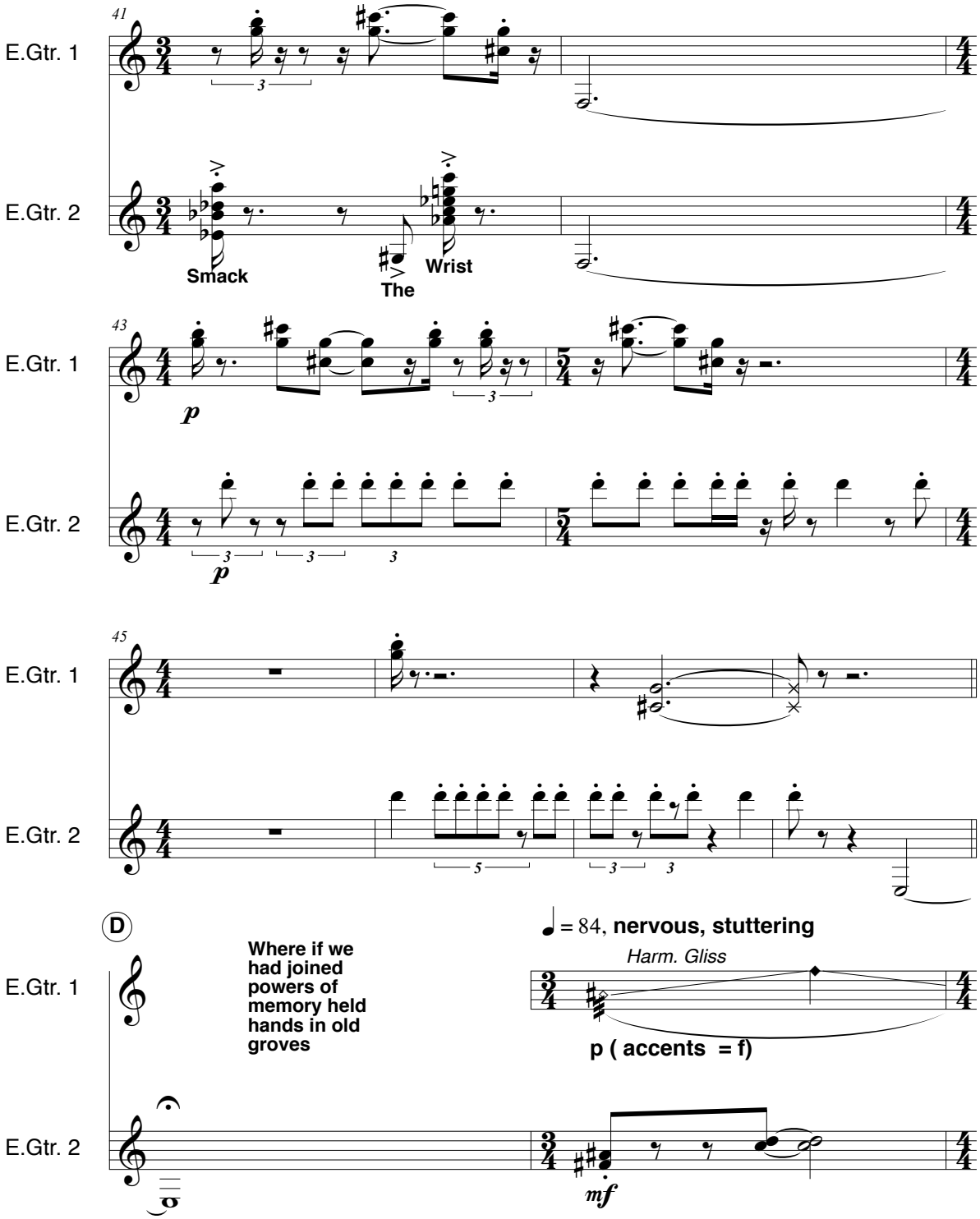


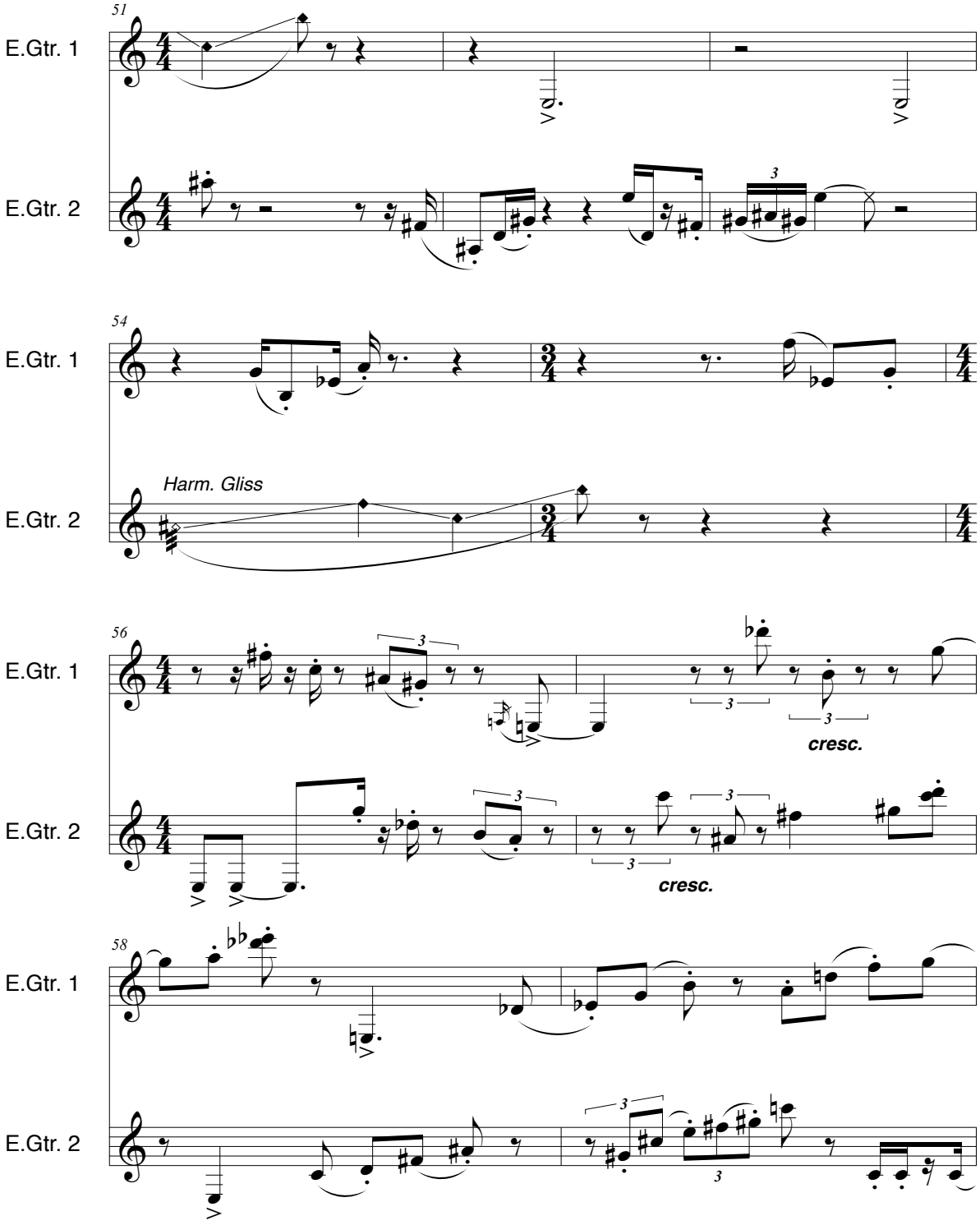

50"
55"
E.Gtr. 1
Ninety-nine cents the gray ancient blue heron her stillness
and untouchable
E.Gtr. 2
Good
Wrist
1:00
1:05
E.Gtr. 1
E.Gtr. 2
to pick...
Good
Good
Wrist
A
Harm.
1:10
1:15
Rvb.
subito p
E.Gtr. 1
Skin
pp
Move through pitches slowly and gently
but with random spacing, like wind chimes in a light breeze
Dly.
Rvb.
w/pick
E.Gtr. 2
pp
O.P.P.M (x noteheads only)
Play all notes above the 8th fret (except regular noteheads)
1:20
1:25
E.Gtr. 1
E.Gtr. 2

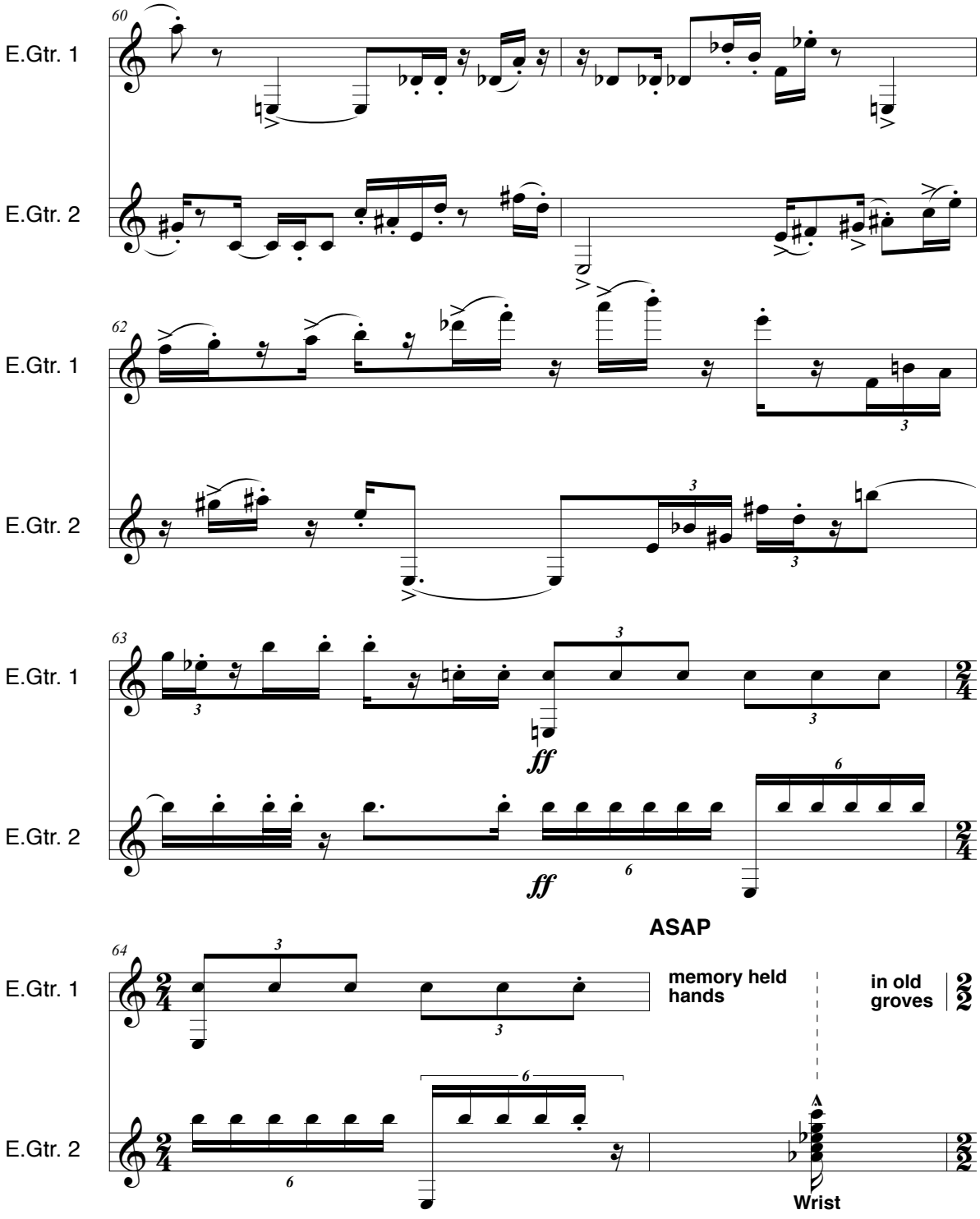

1:30
1:35
E.Gtr. 1
E.Gtr. 2
1:40
1:45
E.Gtr. 1
E.Gtr. 2
1:50
1:55
E.Gtr. 1
E.Gtr. 2
B
2:00
Harm.
2:05
E.Gtr. 1
from a
womb story
E.Gtr. 2
Smack
f

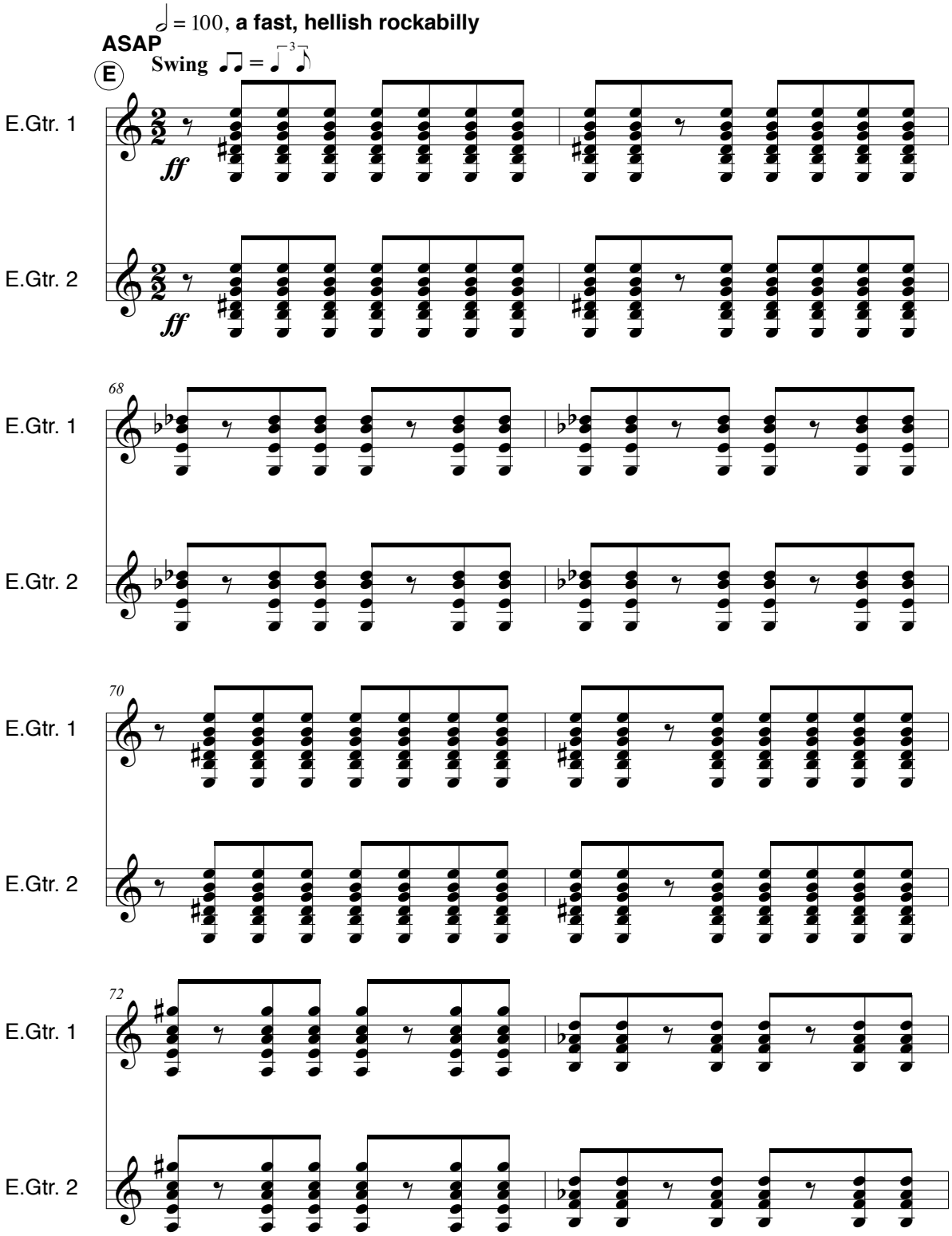

2:10
2:15
Harm.
E.Gtr. 1
E.Gtr. 2
from a
womb story
Smack
2:20
2:25
mp
again, like wind chimes, but in a heavier breeze now
Dly.
OD
mp
2:30
2:35
2:40
2:45

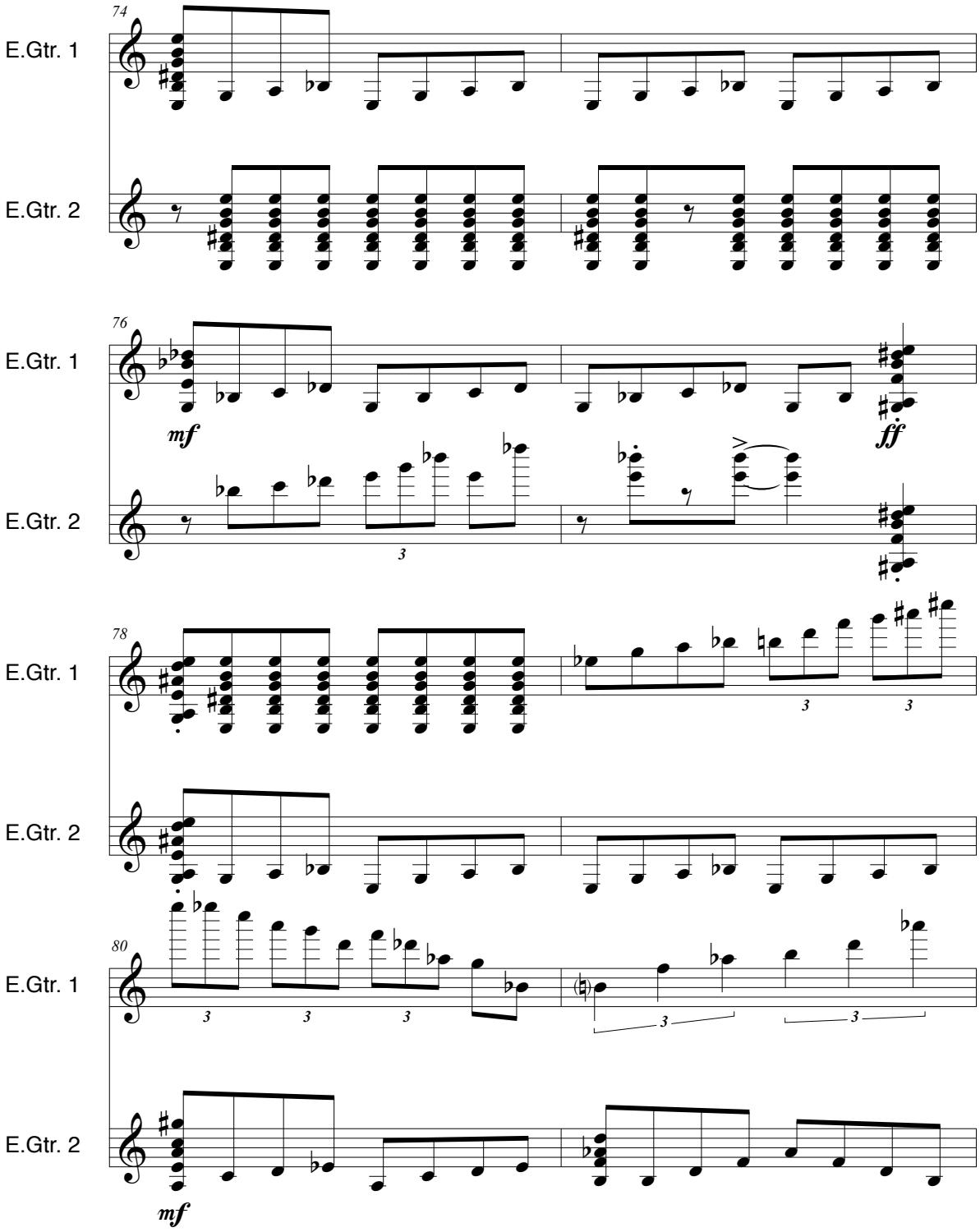

2:50
2:55
E.Gtr. 1
E.Gtr. 2
= 120
C 3:00
Harm.
OD
Smack
f
37
to pick...
A
womb story
ff
Good
Smack
39
she was delivered
into our preditory
matrix
The
Good
The

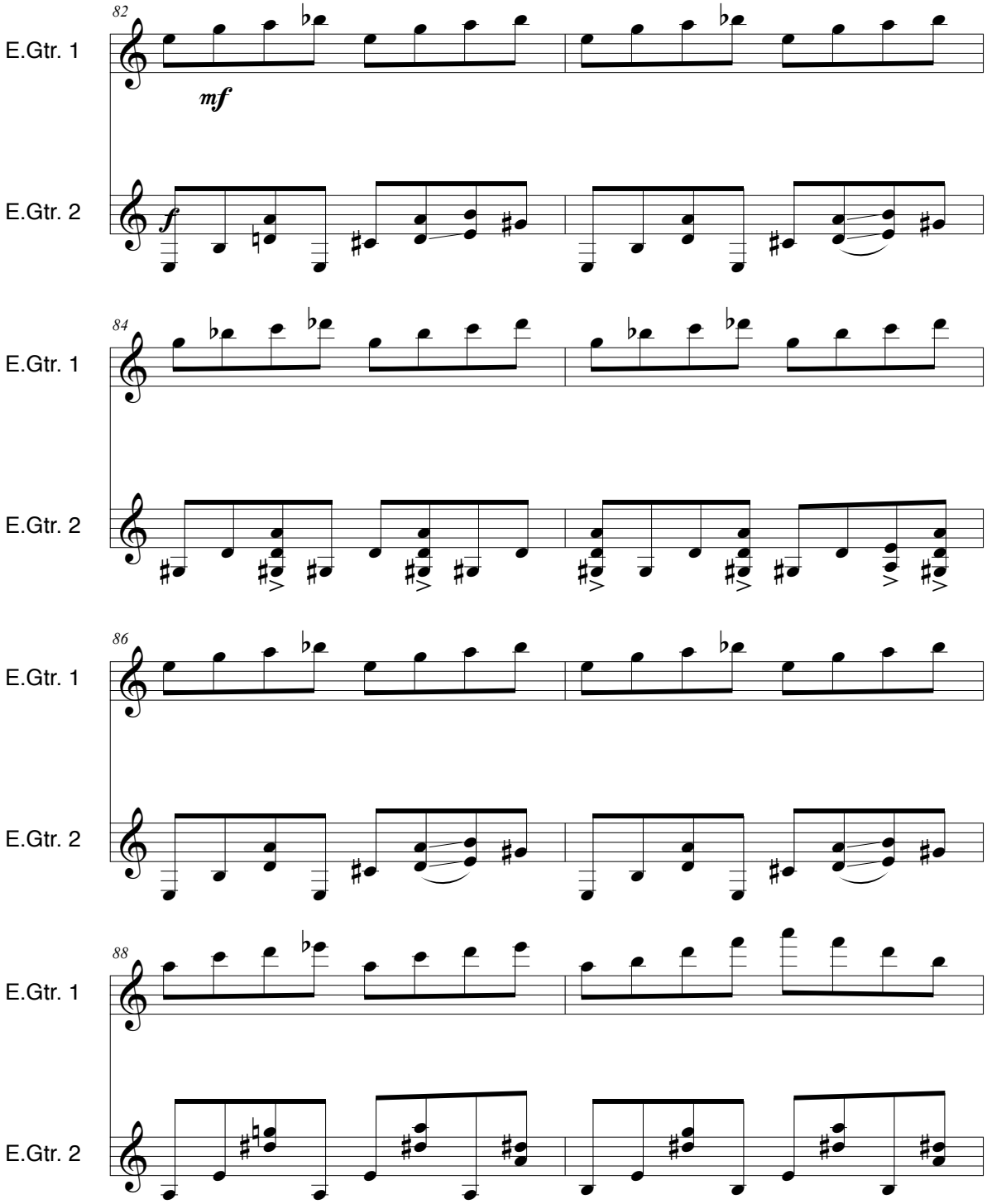

41
E.Gtr. 1
E.Gtr. 2
Smack
The
Wrist
43
E.Gtr. 1
E.Gtr. 2
45
E.Gtr. 1
E.Gtr. 2
D
Where if we had joined powers of memory held hands in old groves
♩ = 84, nervous, stuttering
Harm. Gliss
p (accents = f)
E.Gtr. 1
E.Gtr. 2
mf

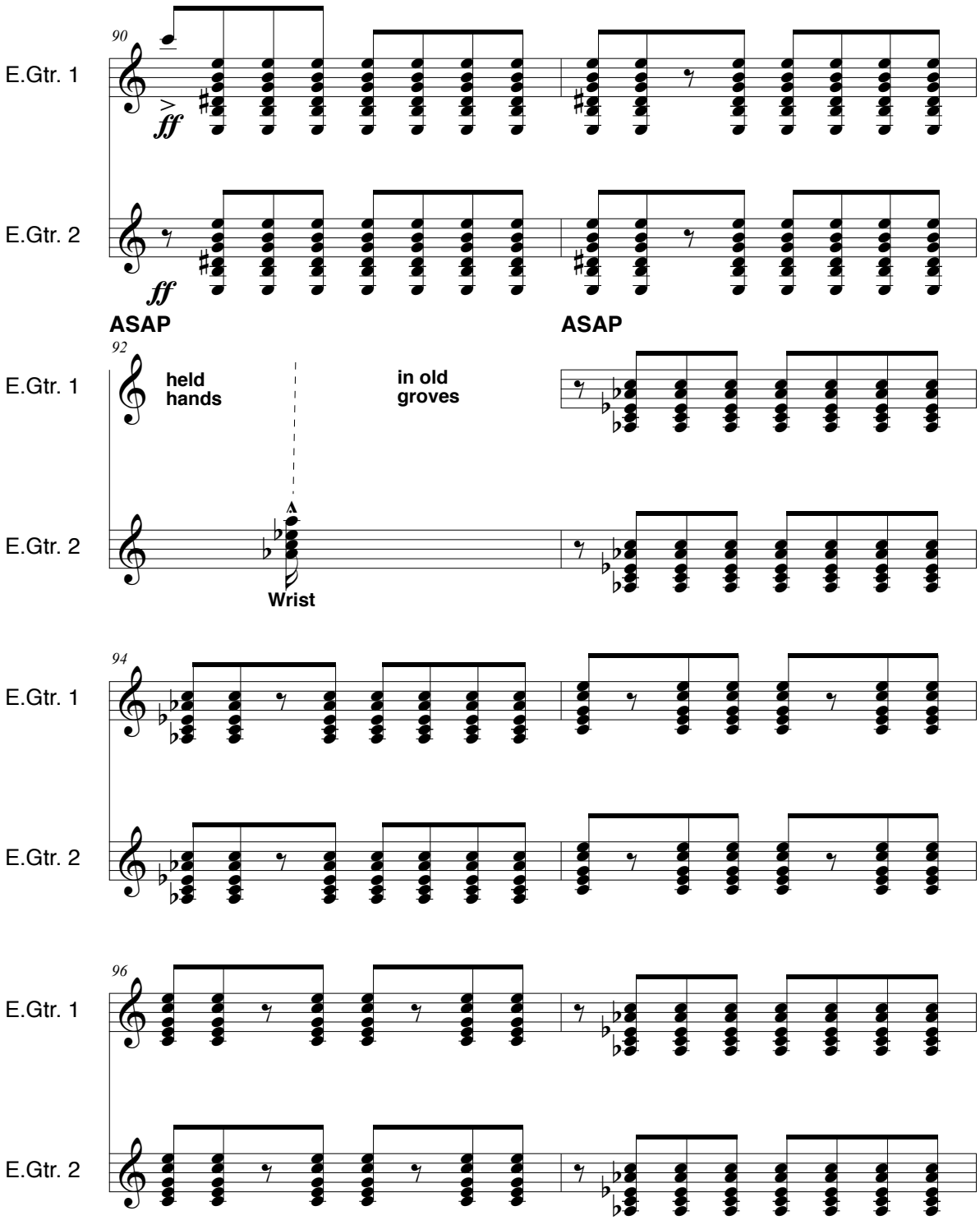

51
E.Gtr. 1
E.Gtr. 2
54
E.Gtr. 1
Harm. Gliss
E.Gtr. 2
56
E.Gtr. 1
cresc.
E.Gtr. 2
cresc.
58
E.Gtr. 1
E.Gtr. 2

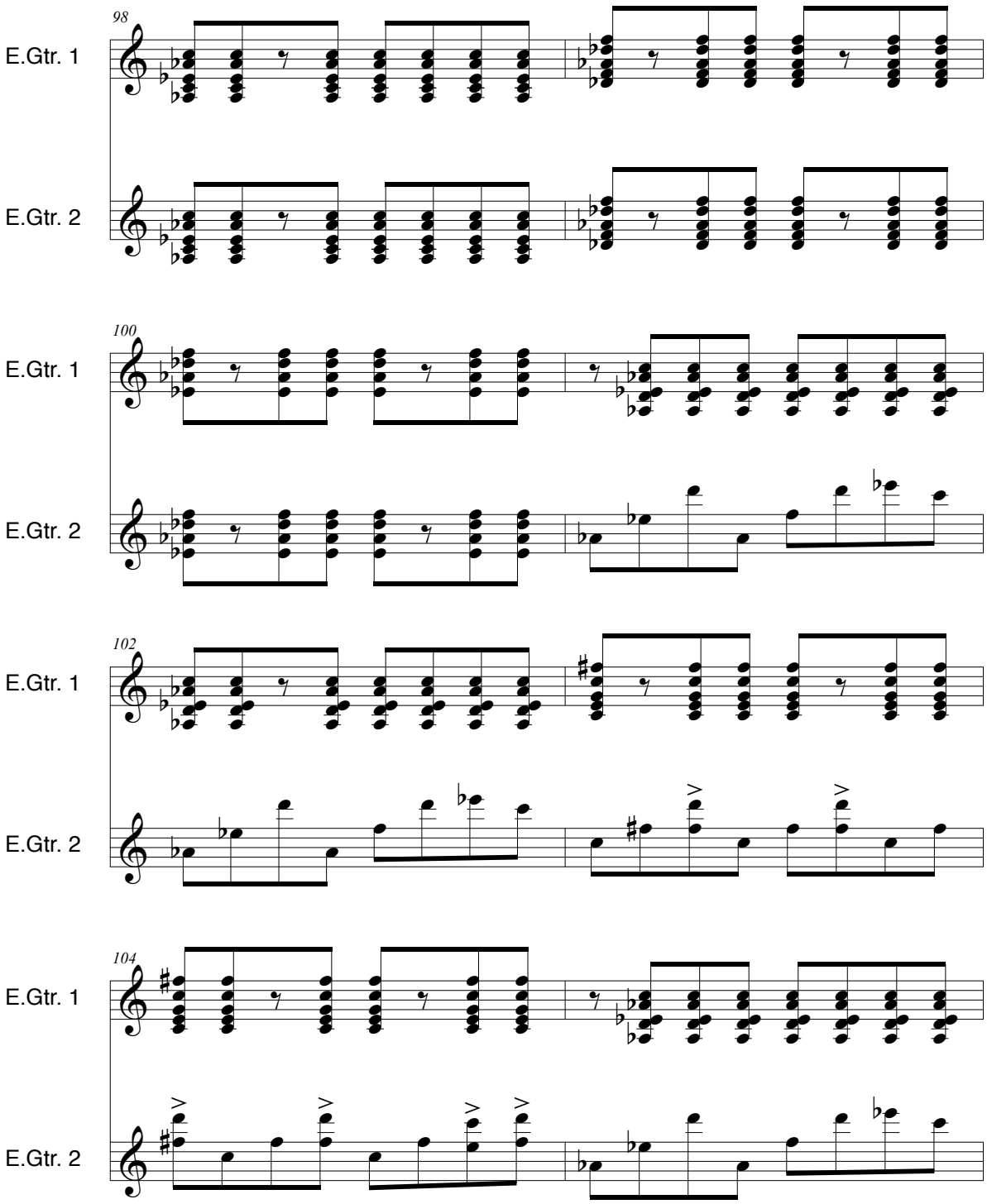

60
E.Gtr. 1
E.Gtr. 2
62
E.Gtr. 1
E.Gtr. 2
63
E.Gtr. 1
ff
E.Gtr. 2
ff
ASAP
64
E.Gtr. 1
memory held
hands
in old
groves
E.Gtr. 2
Wrist

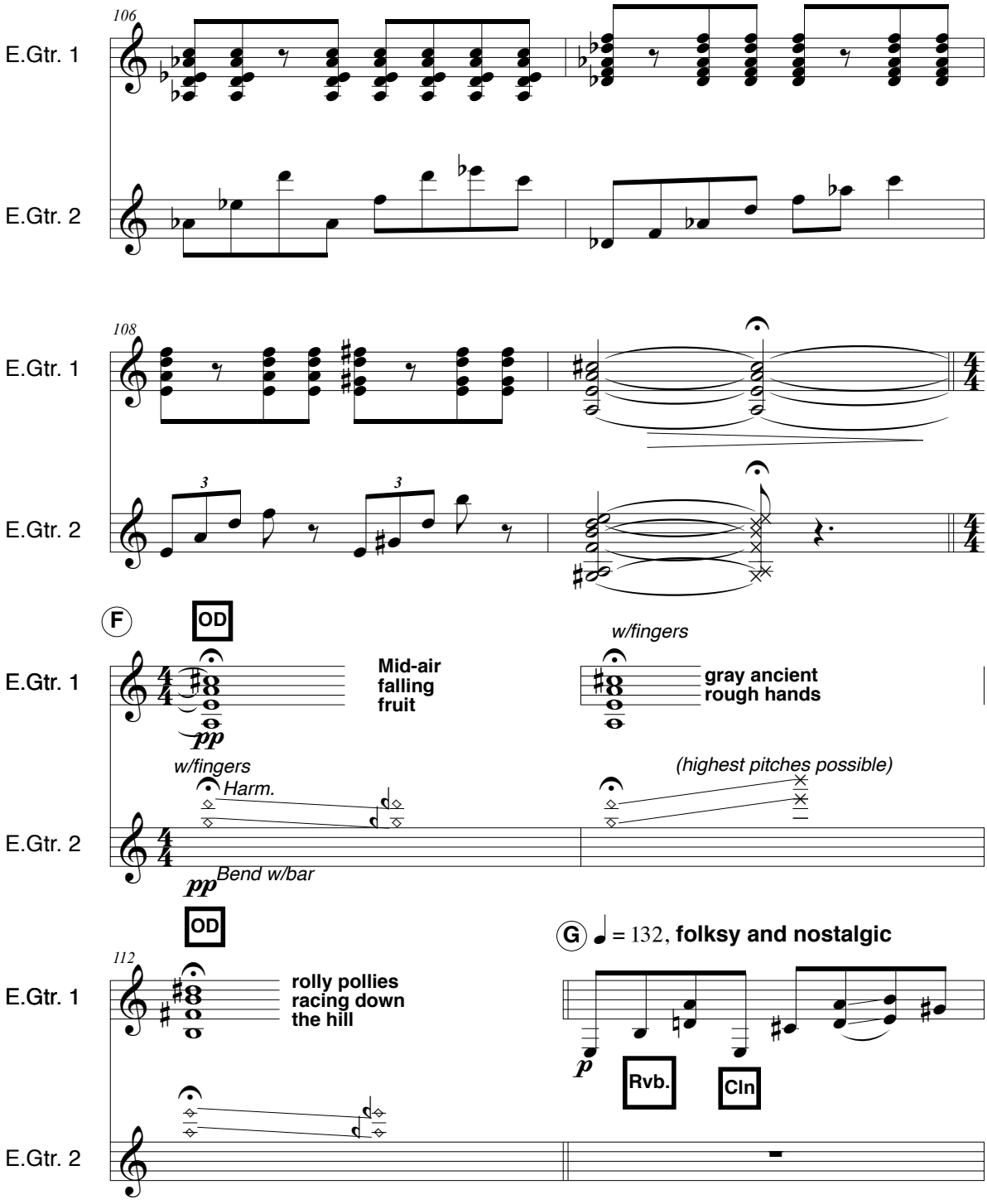

= 100, a fast, hellish rockabilly
ASAP
Swing
E
E.Gtr. 1
E.Gtr. 2
ff
68
70
72

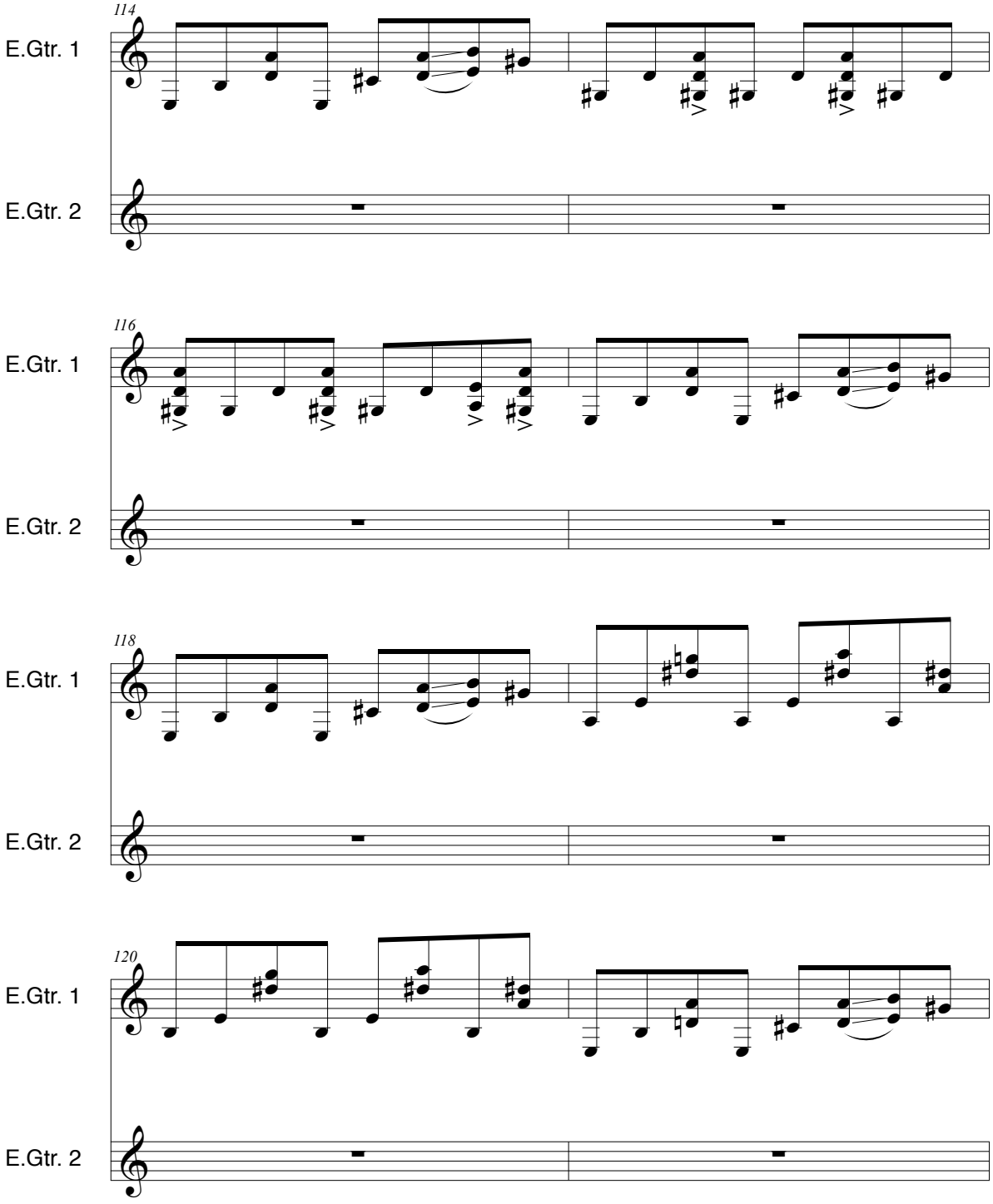

74
E.Gtr. 1
E.Gtr. 2
76
E.Gtr. 1
mf
ff
E.Gtr. 2
3
78
E.Gtr. 1
3
3
E.Gtr. 2
80
E.Gtr. 1
3
3
3
3
3
E.Gtr. 2
mf

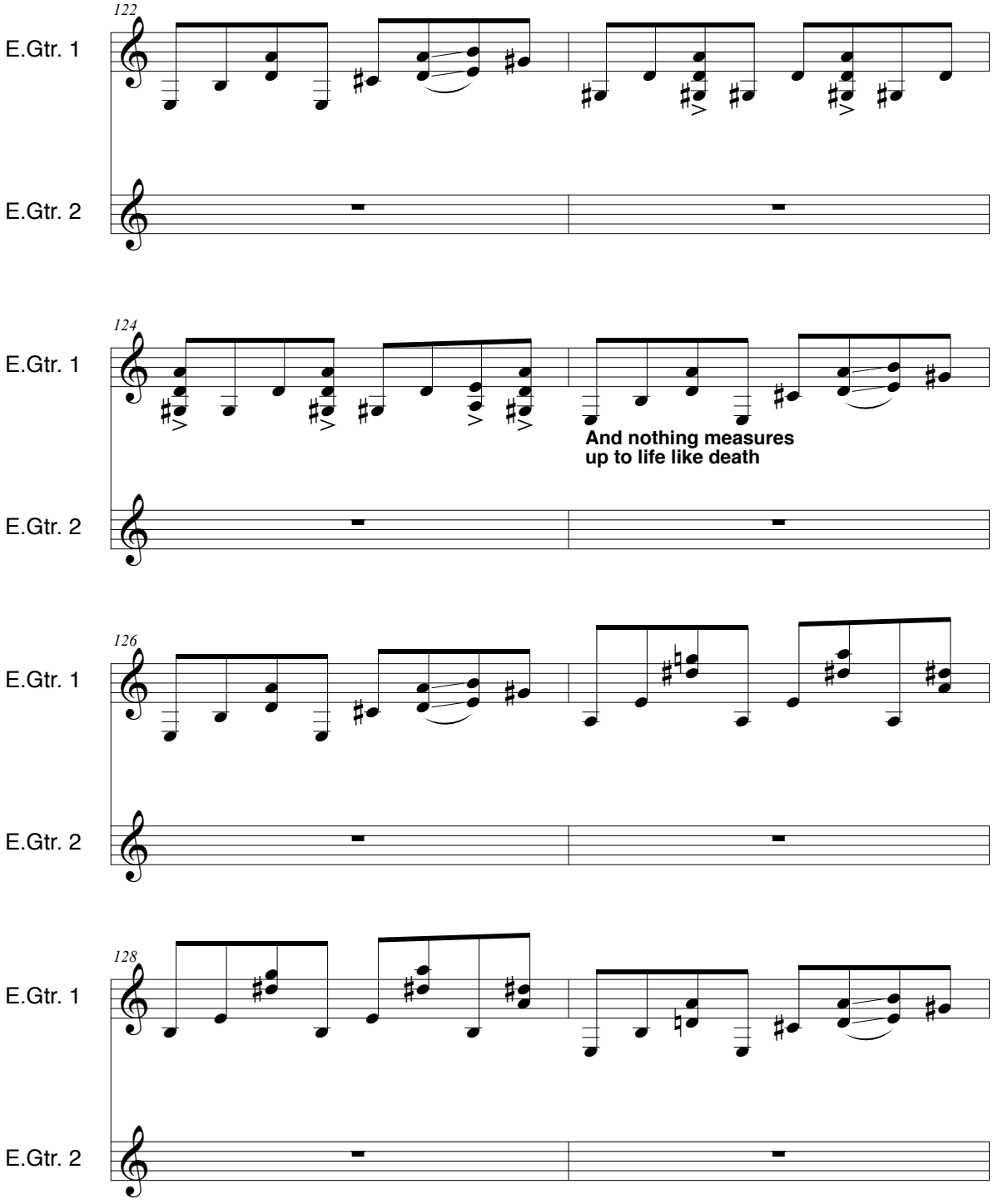

82
E.Gtr. 1
mf
E.Gtr. 2
f
84
E.Gtr. 1
E.Gtr. 2
86
E.Gtr. 1
E.Gtr. 2
88
E.Gtr. 1
E.Gtr. 2

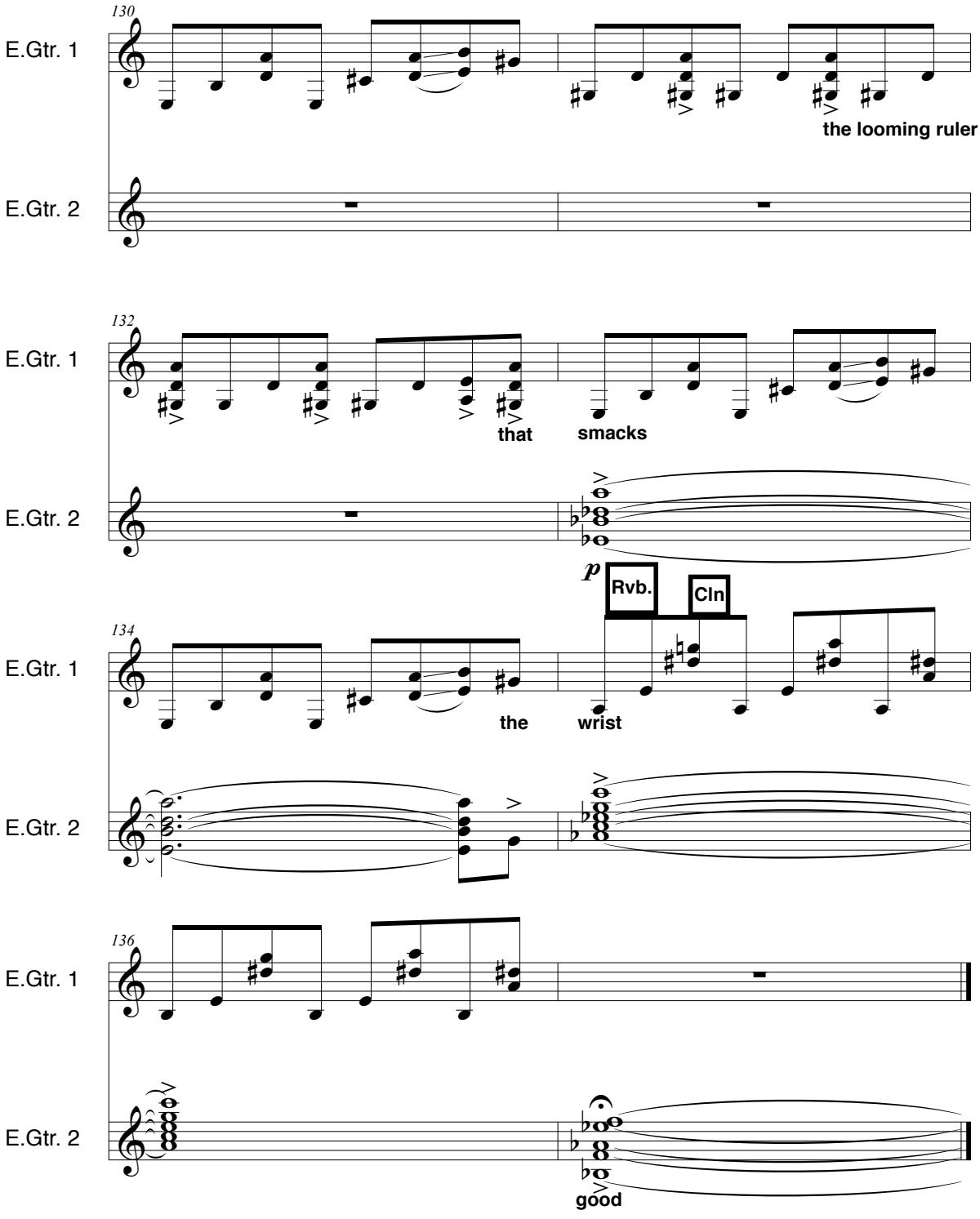

90
E.Gtr. 1
E.Gtr. 2
ff
ff
ASAP
ASAP
92
E.Gtr. 1
E.Gtr. 2
held
hands
in old
groves
Wrist
94
E.Gtr. 1
E.Gtr. 2
96
E.Gtr. 1
E.Gtr. 2


98
E.Gtr. 1
E.Gtr. 2
100
E.Gtr. 1
E.Gtr. 2
102
E.Gtr. 1
E.Gtr. 2
104
E.Gtr. 1
E.Gtr. 2


106
E.Gtr. 1
E.Gtr. 2
108
E.Gtr. 1
E.Gtr. 2
3
3
F
OD
E.Gtr. 1
pp
Mid-air
falling
fruit
w/fingers
gray ancient
rough hands
w/fingers
Harm.
(highest pitches possible)
E.Gtr. 2
pp
Bend w/bar
OD
G
♩ = 132, folksy and nostalgic
112
E.Gtr. 1
rolly pollies
racing down
the hill
p
Rvb.
Cln
E.Gtr. 2


114
E.Gtr. 1
E.Gtr. 2
116
E.Gtr. 1
E.Gtr. 2
118
E.Gtr. 1
E.Gtr. 2
120
E.Gtr. 1
E.Gtr. 2


122
E.Gtr. 1
E.Gtr. 2
124
E.Gtr. 1
And nothing measures
up to life like death
E.Gtr. 2
126
E.Gtr. 1
E.Gtr. 2
128
E.Gtr. 1
E.Gtr. 2


130
E.Gtr. 1
the looming ruler
E.Gtr. 2
132
E.Gtr. 1
that
smacks
E.Gtr. 2
p
Rvb.
Cln
134
E.Gtr. 1
the
wrist
E.Gtr. 2
136
E.Gtr. 1
E.Gtr. 2
good

SLOW BURN (2016)

for clarinet and live electronics

Premiered by Amanda Kritzberg March 5th, 2016 at the Museum of Art, Design, and Architecture, University of California, Santa Barbara

PROGRAM NOTES

Originally composed for recorder player Lucia Mense in 2014, *Slow Burn* was updated and revised for clarinet in 2016 for a wonderful player and dear friend, Amanda Kritzberg. The text heard throughout the work is my own, written in 2011. The prerecorded speech is manipulated in various ways throughout the piece, sometimes it is clear and forward, other times muttering, indecipherable, and grainy. The clarinet sound is also manipulated throughout the piece with filters, resonators, delays, looping devices, and, most significantly, a pitch bending pedal foot pedal.

I am incredibly thankful to Amanda for her time and assistance in updating and adapting this piece.

PERFORMANCE NOTES

- Keep in mind that the piece is not just a solo but it's often a duet with the electronics, and, in some cases, yourself.
- Depending on the space, you may choose to not amplify the clarinet. In this case, be sure that the balance between electronics and clarinet is even and blends well.
- The live looping is optional, you may wish to prerecord the loops and "fake" this effect since the Ableton looper can be imprecise.

ELECTRONIC CUE

The score includes a cue staff for both the electronics and clearly heard vocals. Often, the cue only indicates the onset of events, like textures and prerecorded spoken text, in order to orient the performer within the work.

NOTATION

Square noteheads always with a corresponding number above: these are multiphonics of your choosing. Choose 3 multiphonics that you feel comfortable with, the first 2 can be slow speaking and the 3rd should be one that you can get to speak quickly.

Articulations that are circles with lines at the top indicate slap tonguing

Diamond noteheads indicate pitched air

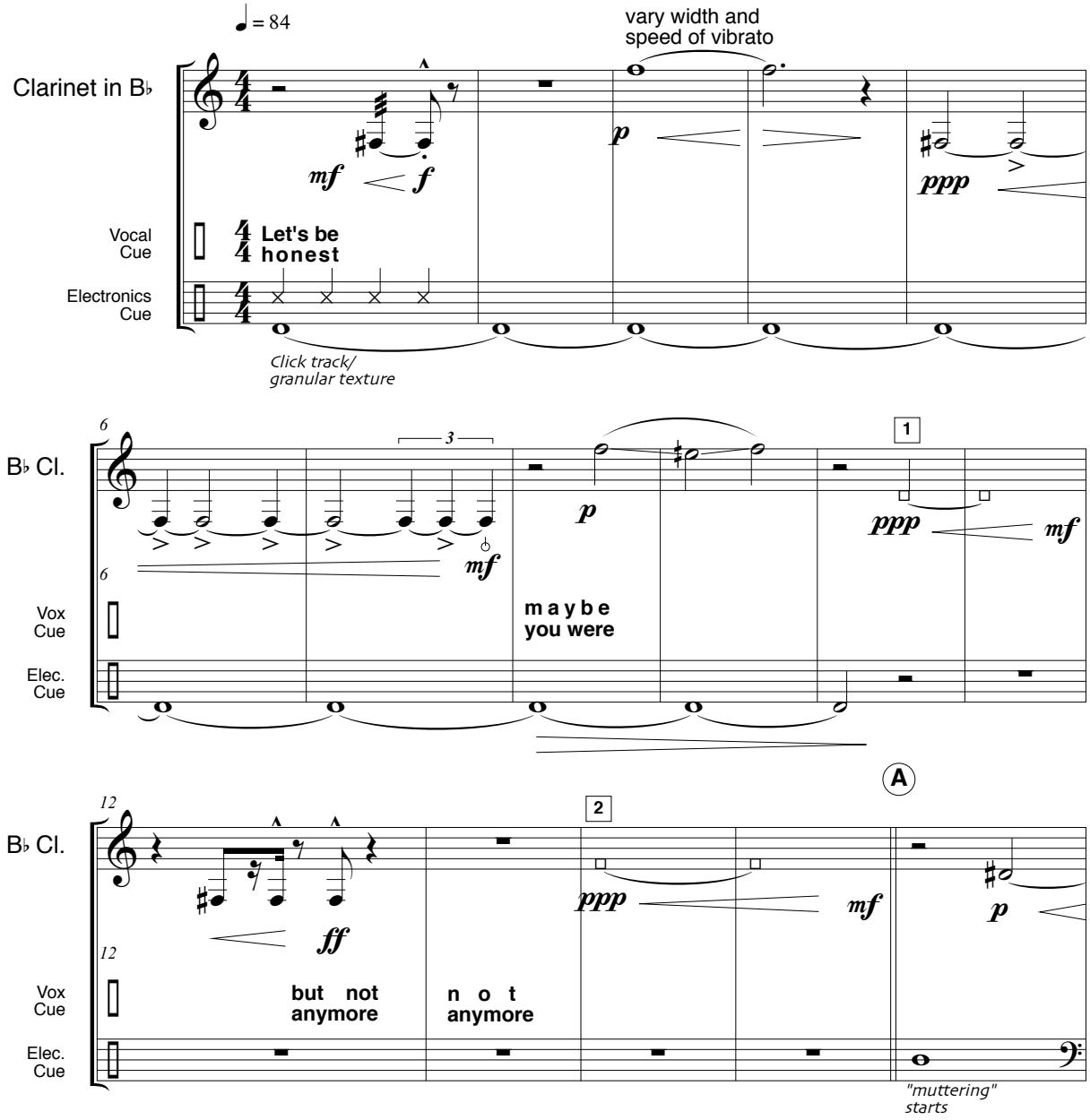
The feathered (angled) beams in the final section after E are just indicating that you should slowly accelerate into a tremolo and back out of it.

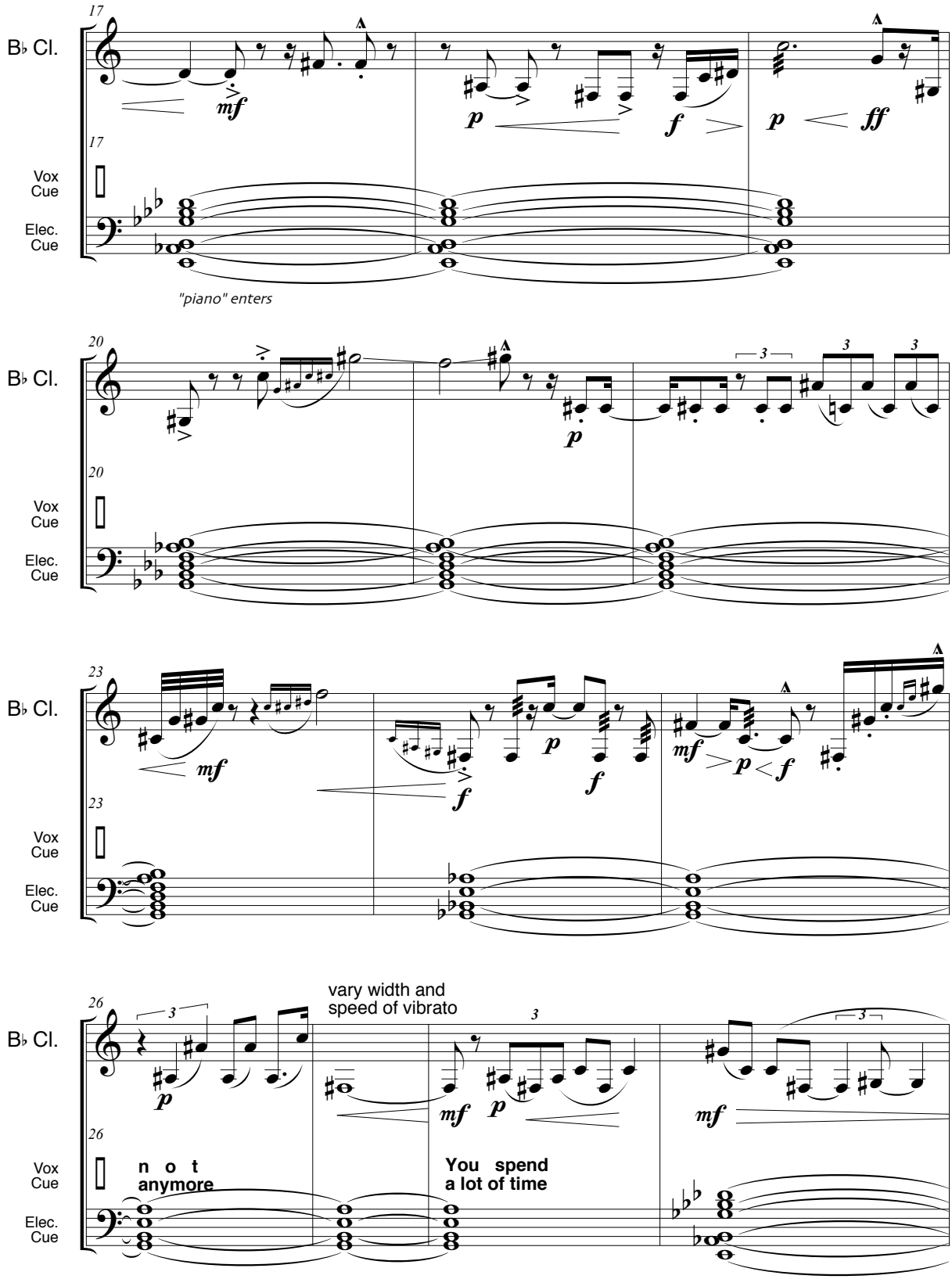
Foot pedal: The foot pedal should lower you pitch by 2 octaves. The foot pedal indicators below the clarinet line indicate the position of the foot pedal and the arrows indicate the time it should take to move to that position. Indications of down and to the left mean that the pedal should be "heel down" making the effect off; angled to the right is the "toe down" position activating the effect fully. There is only one moment when you are asked to have the pedal in between, all other instances are either heel down or toe down. Attend of the piece you are free to improvise with the pedal, have fun!

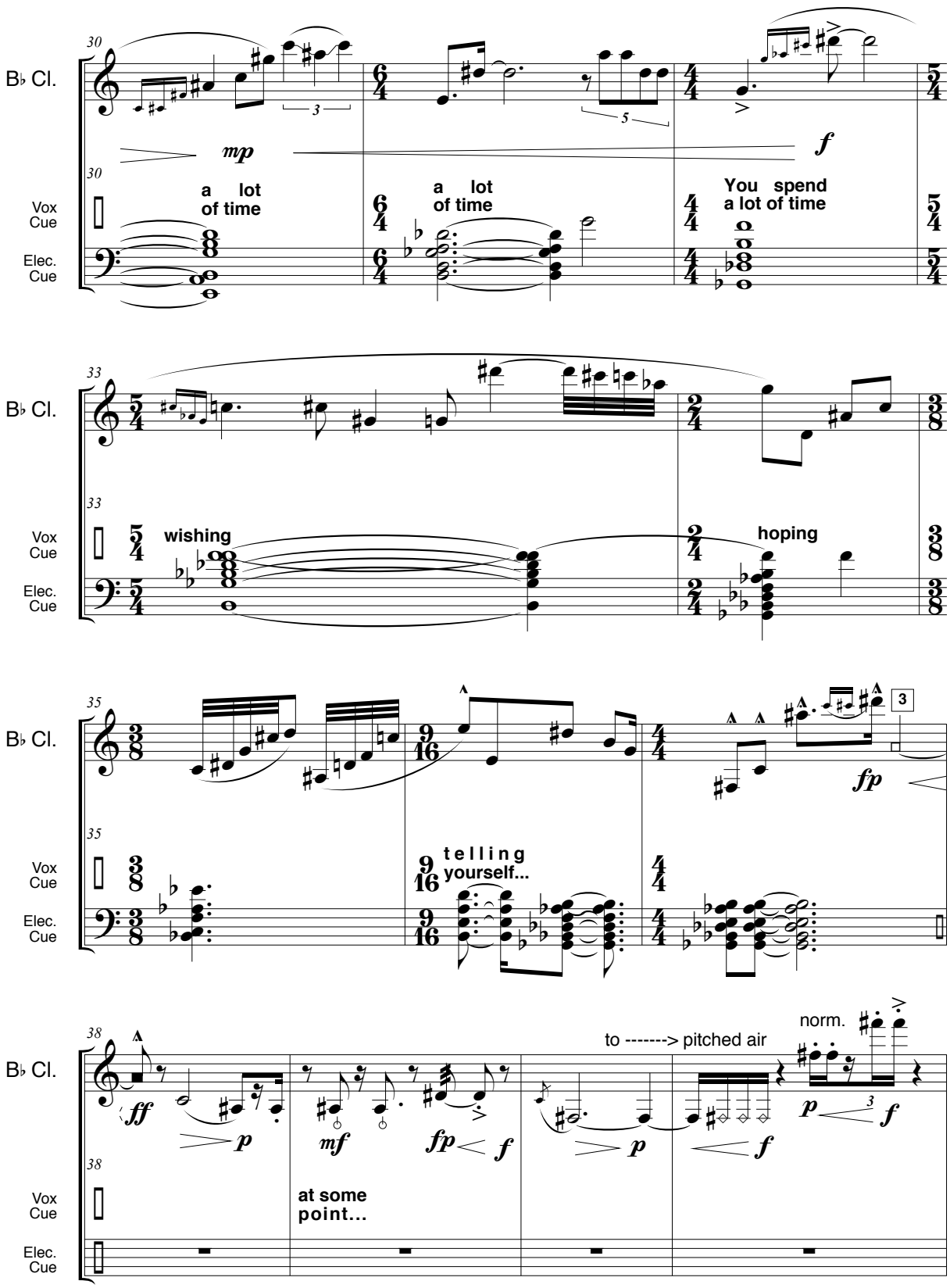
Slow Burn

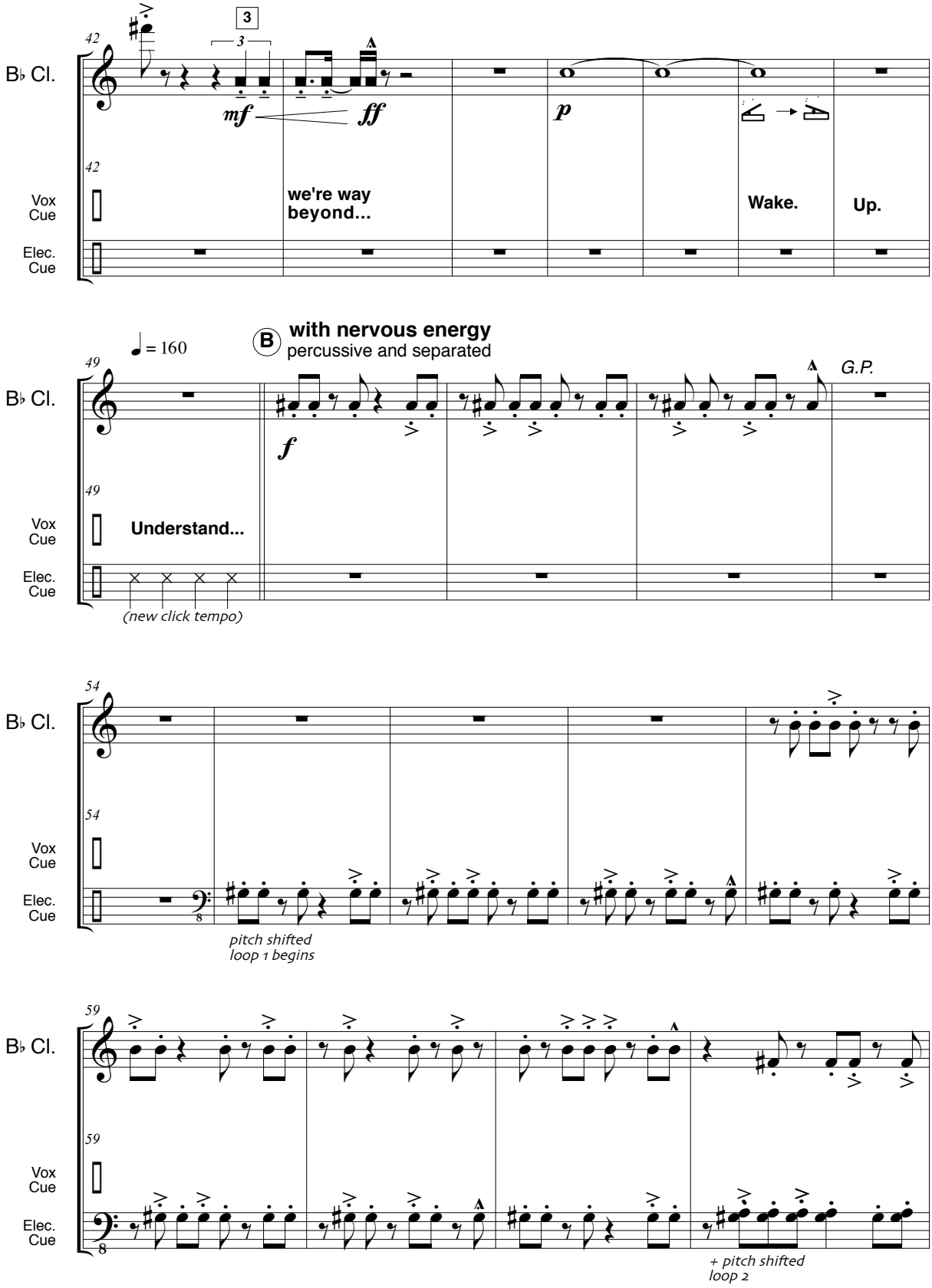
for Amanda Kritzberg

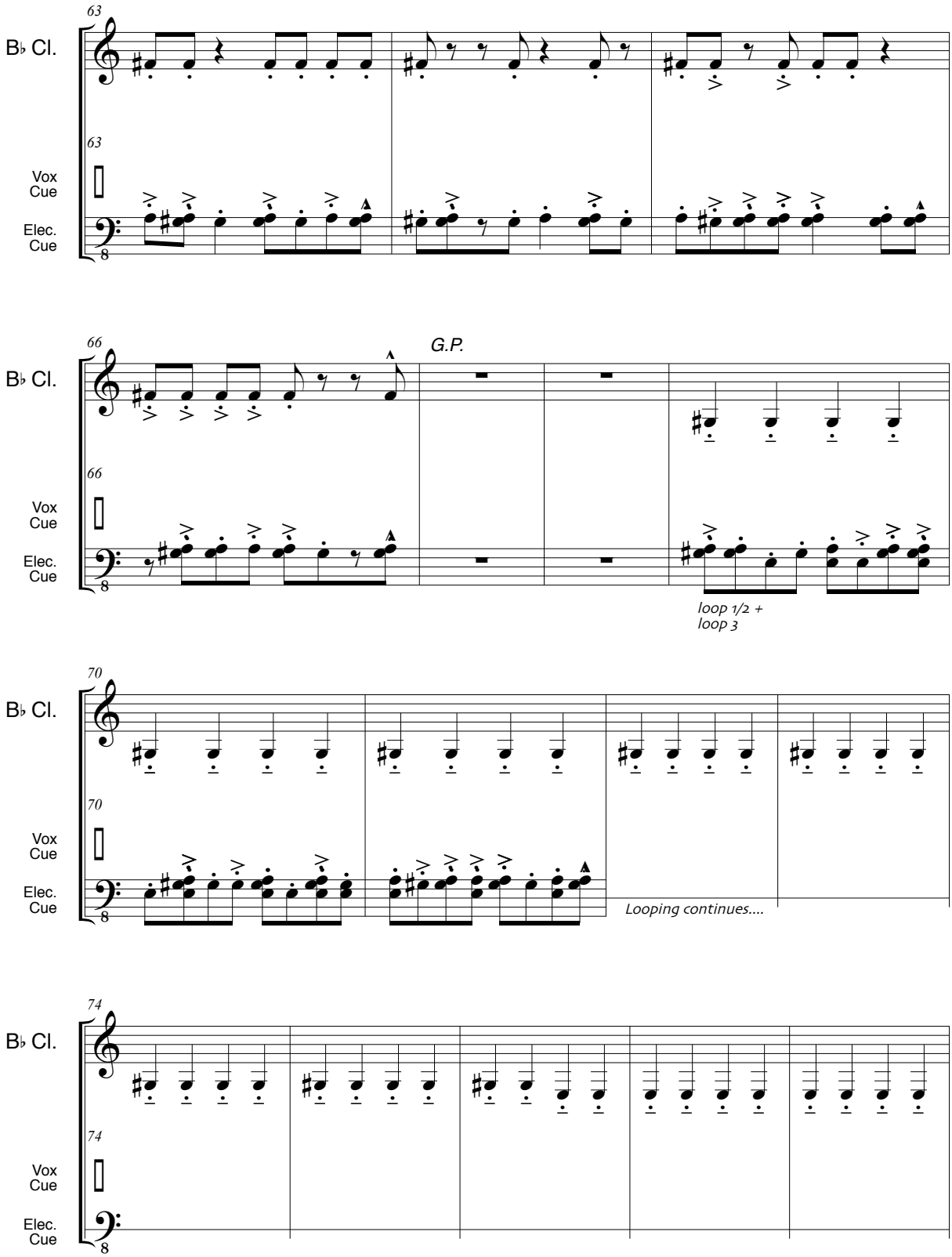
Anthony Paul Garcia

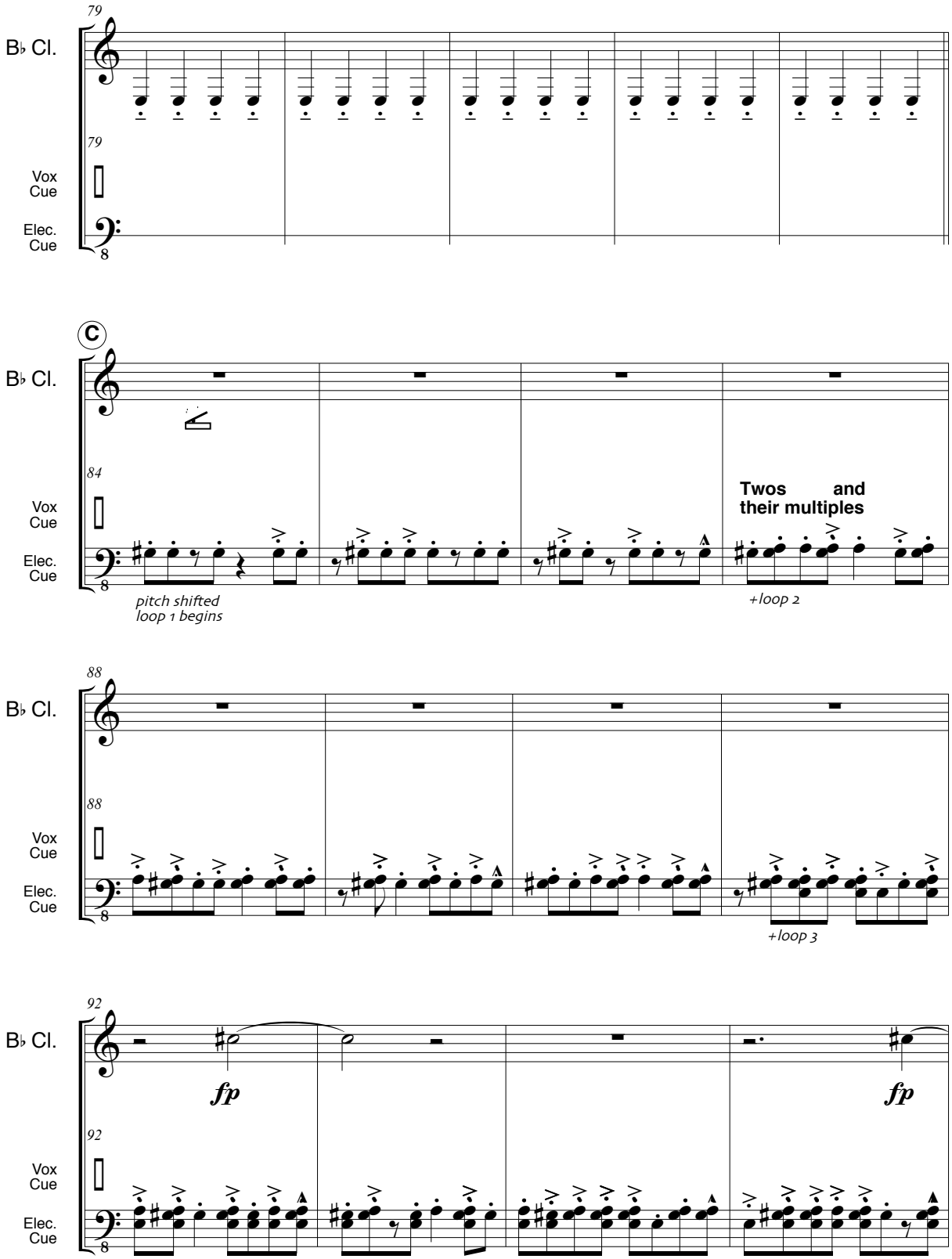


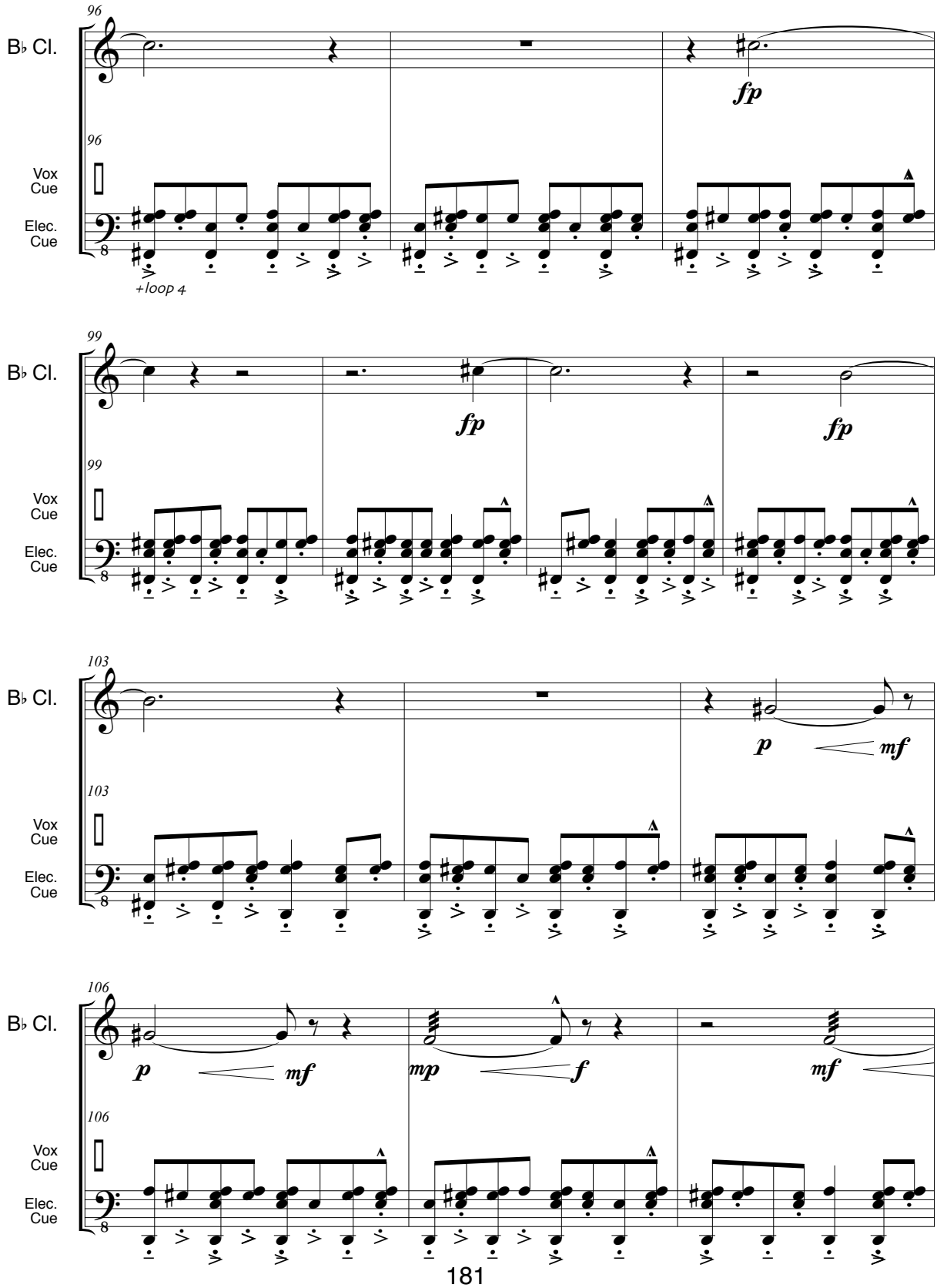

17
B♭ Cl.
mf
p
f
p
ff
17
Vox Cue
Elec. Cue
"piano" enters
20
B♭ Cl.
p
3
3
3
20
Vox Cue
Elec. Cue
23
B♭ Cl.
mf
f
p
f
mf
p
f
23
Vox Cue
Elec. Cue
26
B♭ Cl.
vary width and speed of vibrato
3
3
3
p
mf
p
mf
26
Vox Cue
n o t anymore
You spend a lot of time
Elec. Cue

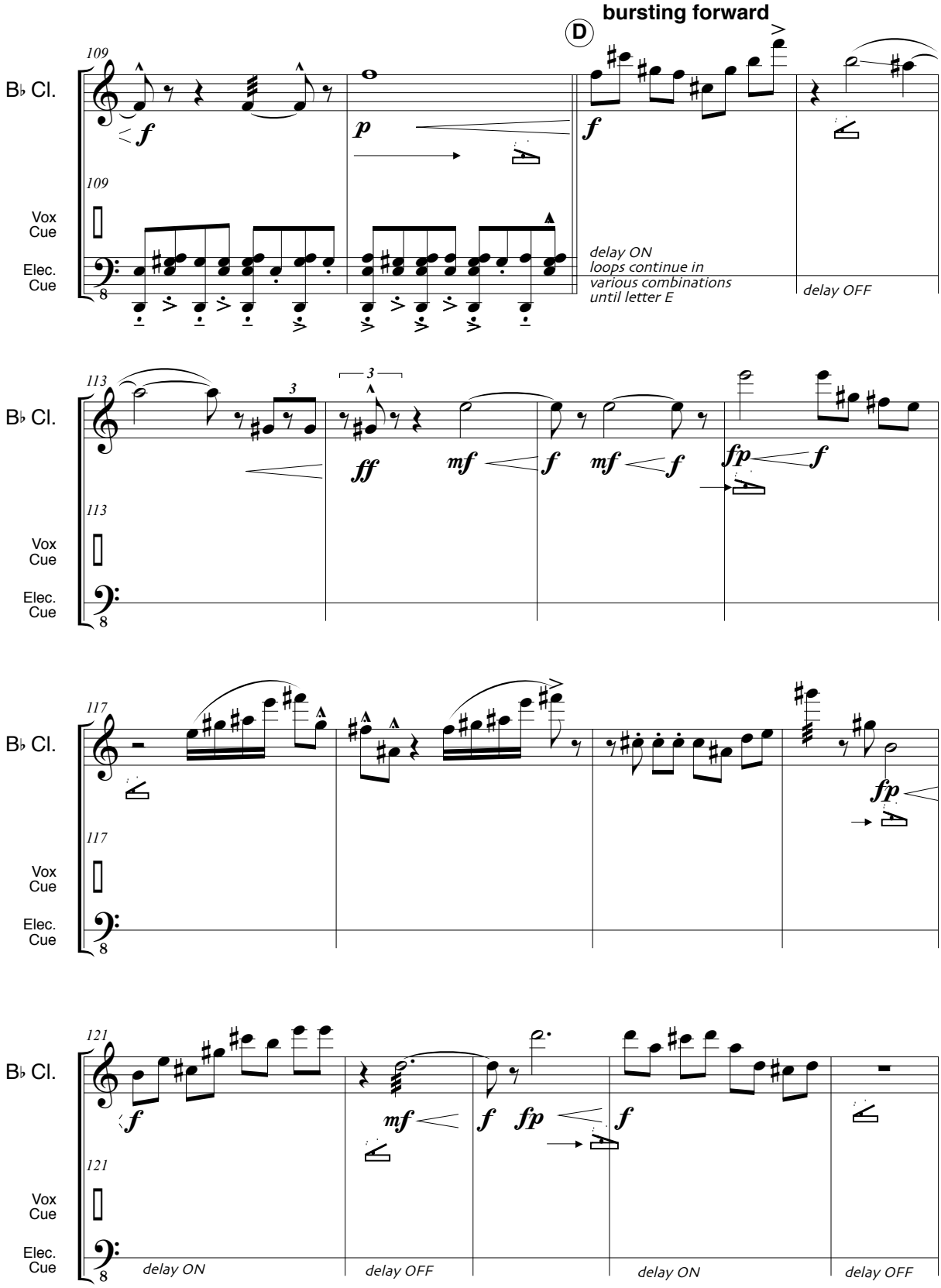

B♭ Cl.
Vox Cue
Elec. Cue
30
mp
f
a lot of time
a lot of time
You spend a lot of time
33
wishing
hoping
35
telling yourself...
fp
3
38
ff
p
mf
fp
f
to -------> pitched air
norm.
at some point...

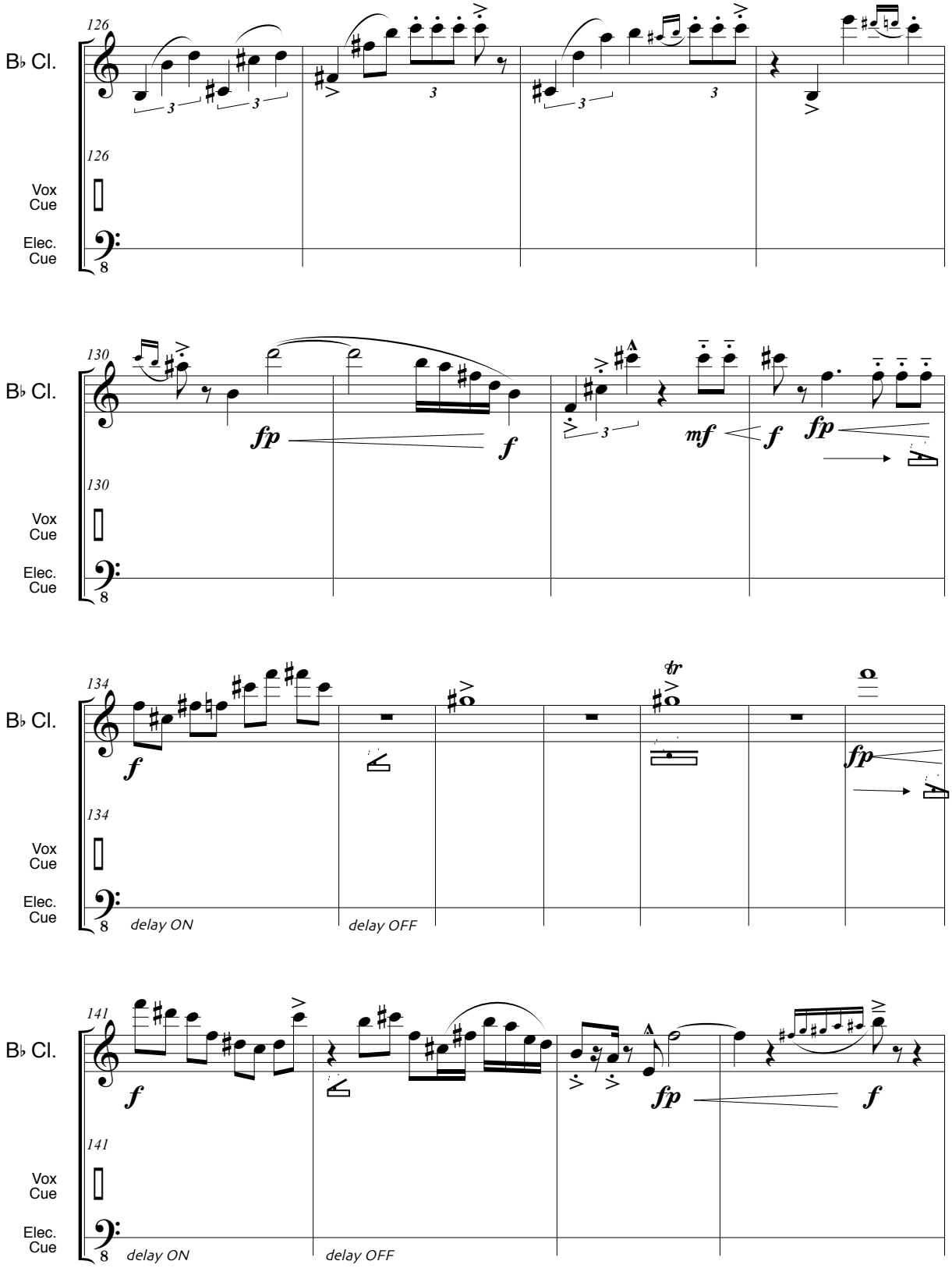

42
B♭ Cl.
3
mf
ff
p
42
Vox Cue
we're way beyond...
Wake.
Up.
Elec. Cue
49
♩ = 160
B
with nervous energy
percussive and separated
G.P.
f
49
Vox Cue
Understand...
Elec. Cue
(new click tempo)
54
pitch shifted loop 1 begins
59
+ pitch shifted loop 2

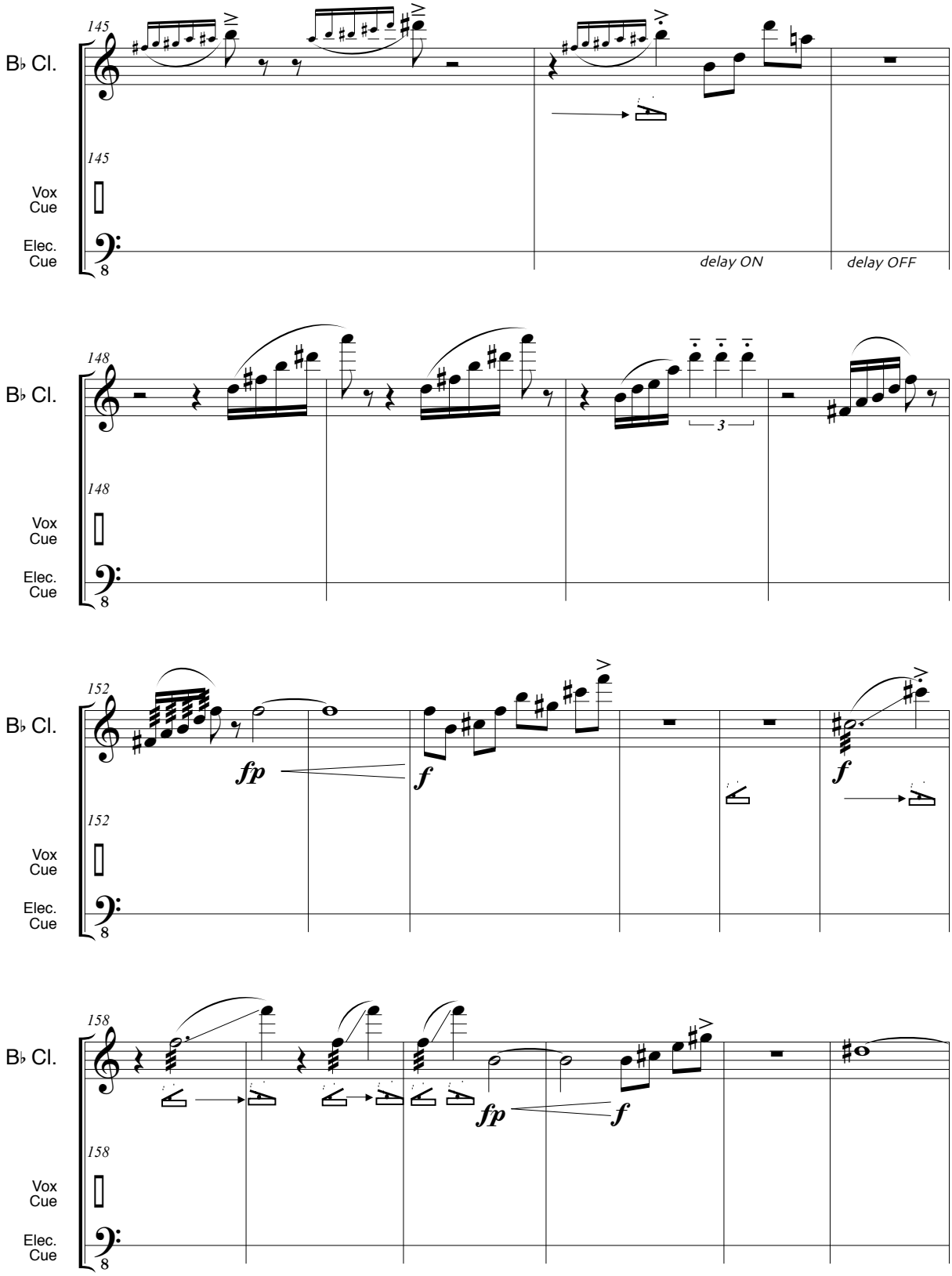

63
B♭ Cl.
63
Vox Cue
Elec. Cue
8
66
B♭ Cl.
G.P.
66
Vox Cue
Elec. Cue
8
loop 1/2 +
loop 3
70
B♭ Cl.
70
Vox Cue
Elec. Cue
8
Looping continues....
74
B♭ Cl.
74
Vox Cue
Elec. Cue
8

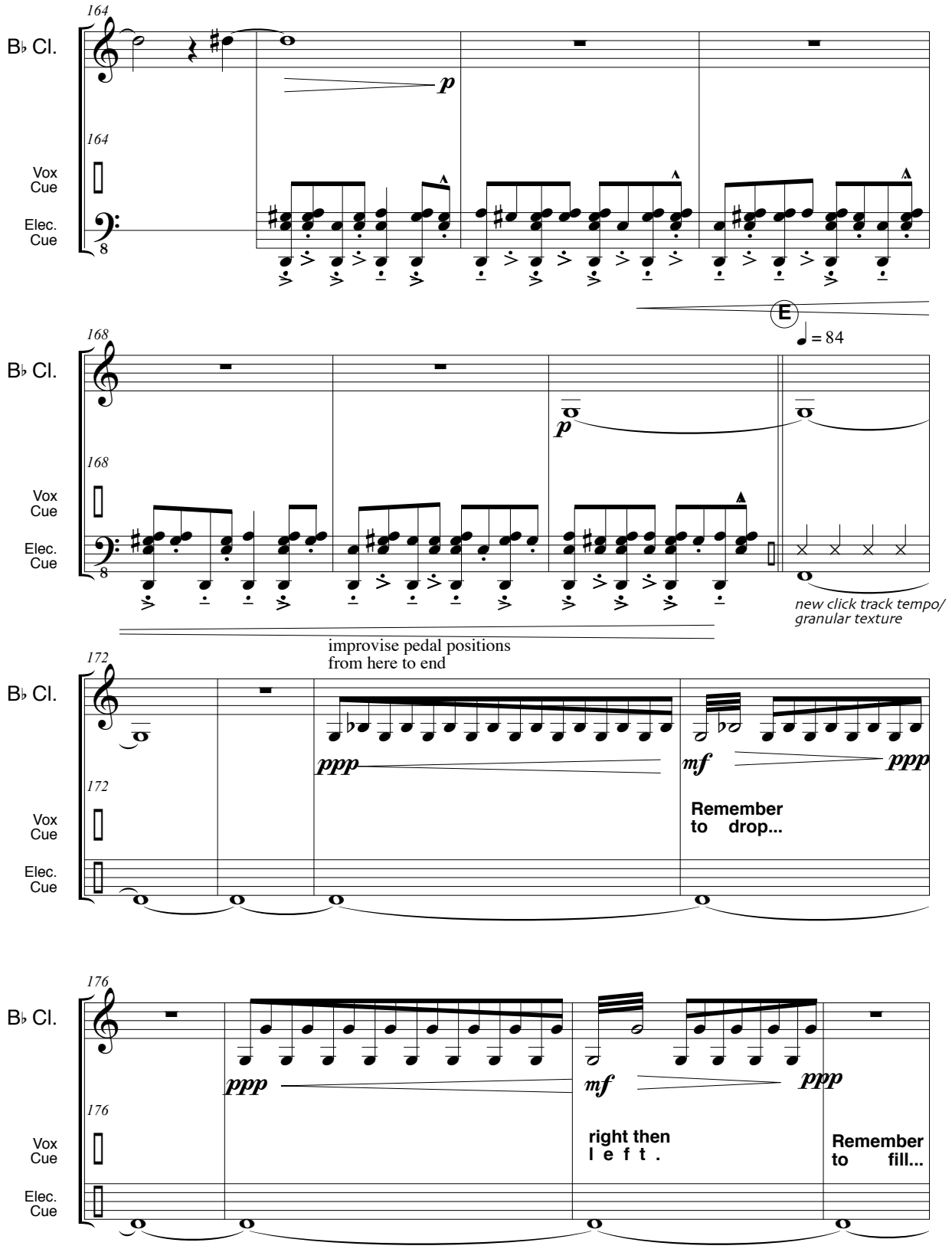

79
B♭ Cl.
79
Vox Cue
Elec. Cue
8
C
84
Twos and their multiples
pitch shifted loop 1 begins
+loop 2
88
+loop 3
92
fp
fp

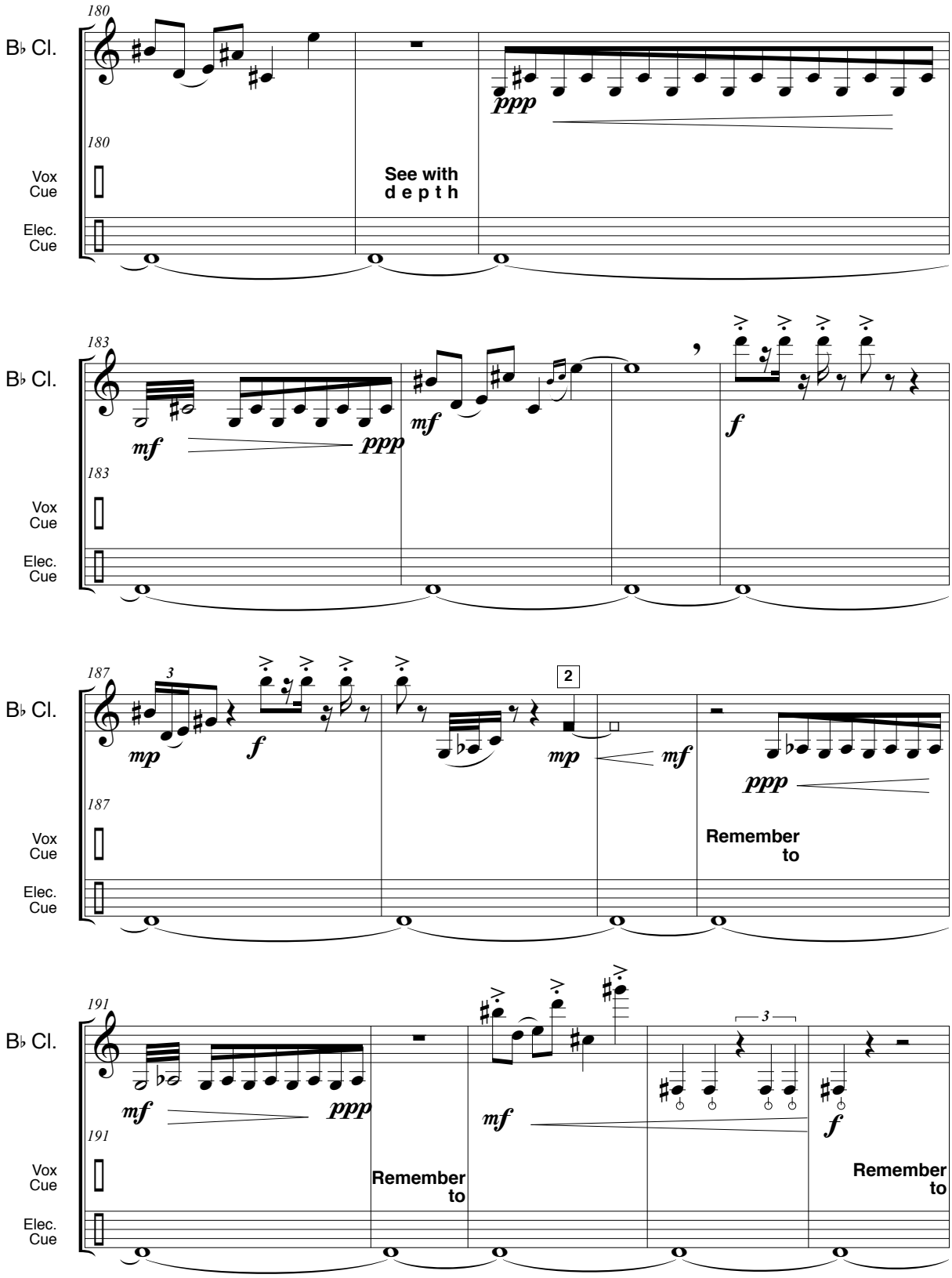

96
B♭ Cl.
fp
96
Vox Cue
Elec. Cue
+loop 4
99
B♭ Cl.
fp
fp
99
Vox Cue
Elec. Cue
103
B♭ Cl.
p
mf
103
Vox Cue
Elec. Cue
106
B♭ Cl.
p
mf
mp
f
mf
106
Vox Cue
Elec. Cue

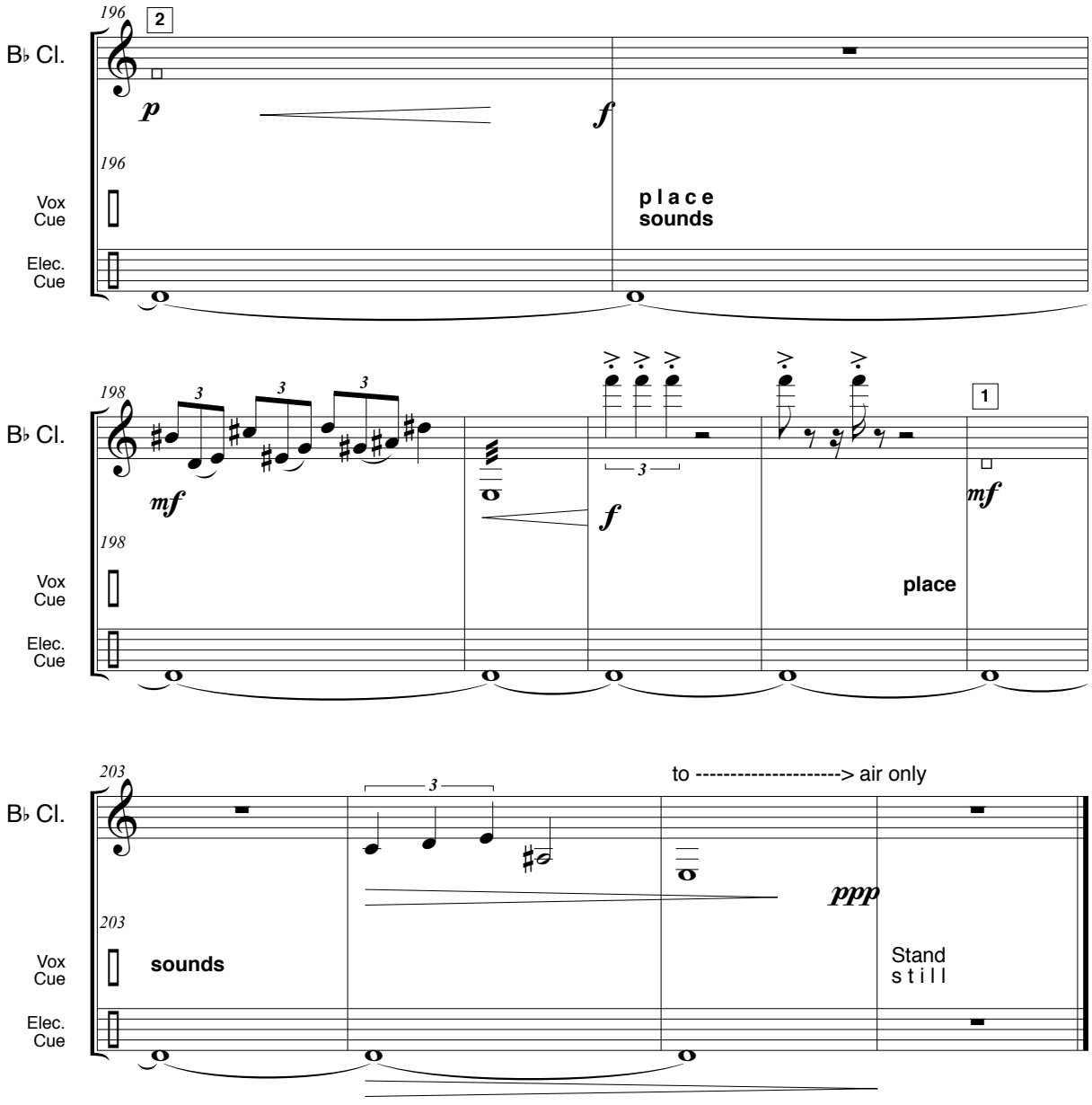

bursting forward
D
109
B♭ Cl.
Vox Cue
Elec. Cue
delay ON
loops continue in
various combinations
until letter E
delay OFF
113
117
121
delay ON
delay OFF
delay ON
delay OFF


126
B♭ Cl.
126
Vox Cue
Elec. Cue
130
fp
f
mf
f
fp
134
tr
fp
delay ON
delay OFF
141
f
fp
f
delay ON
delay OFF


145
B♭ Cl.
145
Vox Cue
Elec. Cue
delay ON
delay OFF
148
B♭ Cl.
148
Vox Cue
Elec. Cue
3
152
B♭ Cl.
fp
f
f
152
Vox Cue
Elec. Cue
158
B♭ Cl.
fp
f
158
Vox Cue
Elec. Cue


164
B♭ Cl.
p
164
Vox Cue
Elec. Cue
8
E
♩ = 84
168
B♭ Cl.
p
168
Vox Cue
Elec. Cue
8
new click track tempo/
granular texture
improvise pedal positions
from here to end
172
B♭ Cl.
ppp
mf
ppp
172
Vox Cue
Remember
to drop...
Elec. Cue
176
B♭ Cl.
ppp
mf
ppp
176
Vox Cue
right then
l e f t .
Remember
to fill...
Elec. Cue


180
B♭ Cl.
ppp
180
Vox Cue
See with d e p t h
Elec. Cue
183
B♭ Cl.
mf
ppp
mf
f
183
Vox Cue
Elec. Cue
187
B♭ Cl.
3
mp
f
2
mp
mf
ppp
187
Vox Cue
Remember to
Elec. Cue
191
B♭ Cl.
mf
ppp
mf
3
f
191
Vox Cue
Remember to
Remember to
Elec. Cue


196
2
B♭ Cl.
p
f
196
Vox Cue
p l a c e
sounds
Elec. Cue
198
3
3
3
B♭ Cl.
mf
f
1
mf
198
Vox Cue
place
Elec. Cue
203
3
to ----------> air only
B♭ Cl.
ppp
203
Vox Cue
sounds
Stand
s t i l l
Elec. Cue